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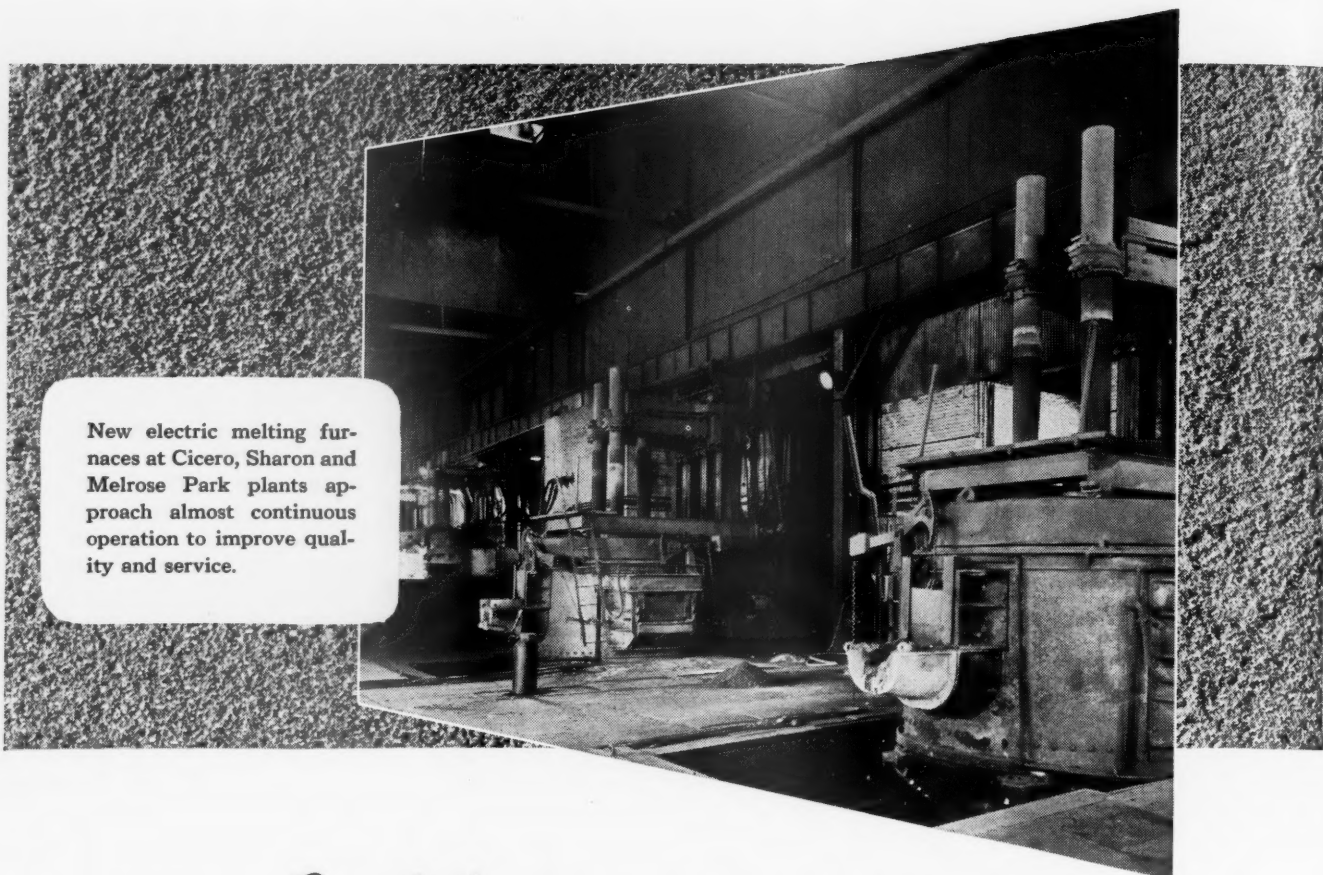
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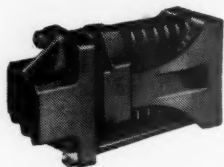


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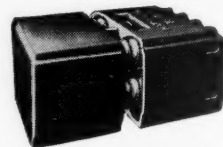
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Railway Age

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White House conferences still continued as this issue went to press, with Whitney and Johnston remaining obdurate.

How to Be Both Prosperous and Free 1059

Digest of an address by the Pennsylvania's president, M. W. Clement, before a forum commemorating the centennial of the birth of George Westinghouse. Mr. Clement discusses the part self-discipline has played in making the nation great.

First Ingalls Diesel-Electric Locomotive 1062

Ingalls Shipbuilding Corporation's new "all-purpose" 1,500-hp. locomotive has a four-cycle turbo-charged unit operating at 660 r.p.m. Weight, 240,000 lb.; length, 59 ft. 1 in.

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The Week at a Glance

THE SAME PATTERN: Whether an agreement was reached in the railroad wage rate dispute on May 18 or May 23 or some other date is much less significant than the manner in which it was arrived at. As is reported in an article in this issue, the extra-legal processes employed were much the same as those to which President Roosevelt resorted in the 1943 Christmas season, when a comparable situation arose, the main difference being that the Army was then put in charge of the government-seized railroads, while this time it is the O. D. T. that has been assigned the responsibility. (At least one difference in procedure may be noted in passing, however—Colonel Johnson hasn't found it necessary to call in any union dictators to advise him how to proceed.) But the "pay off" is again the failure of the White House to back up the decisions of its "fact finders" and its willingness always to make concessions to buy off union leaders bold and determined enough to defy the processes of law and the demands of civic responsibility.

A CLOSE MISS: The long-suffering public, especially that part of it living in or near the larger cities in the Eastern Time zone, had a foretaste on May 18 of the paralyzing effect of a general railroad strike. Whether accidentally or not, word from union headquarters (much more important in such circumstances, evidently, than word from the President of the United States) that the strike had been postponed for five days was slow in reaching several major terminals. Much freight already had been embargoed, through passenger trains were delayed in starting, many commuters' trains didn't move. It could prove to be a profitable experience, though, if the responsibility for such developments is fixed by the public where it belongs—not on the railroads, not even on the union leaders, in the last analysis, but on the framers and executors of the political philosophy that has made such occurrences possible, almost inevitable.

INGALLS DIESEL: The 1,500-hp. "all purpose" Diesel-electric locomotive produced by the Ingalls Shipbuilding Corporation is described in an illustrated article. Characterized by a "turret" cab, this product is powered by an 8-cylinder Superior engine operating Westinghouse electrical equipment. The traction motors are permanently connected in series-parallel, and with a 15:63 gear ratio are capable of 65 m.p.h. maximum speed, making the engine adaptable for heavy switching or for road freight or passenger service.

SELF-DISCIPLINE: One of the fractures threatening the structure of modern civilization is that resulting from the failure of the self-discipline of the men who use things to develop as rapidly as the ability and productiveness of the men who make things. This point is one brought out by President Clement of the Pennsylvania in his provocative address last week on the occasion of the centennial observance of

the birth of George Westinghouse. It was the expectation of the founders of our country that its people would value freedom sufficiently to discipline themselves to retain it, and they laid out a program of government that did not contemplate imposing discipline on the people. Under that program, and with the support of exceptional natural resources, the country has grown to its present greatness, but that position is threatened now, Mr. Clement warns. The need is critical, therefore, he says, for leaders in industry and politics and society who will restore the faith of the people in themselves.

A PARALLEL: This condition is not unprecedented, however. The similarity to the story of the rise and decline of Rome is too close for comfort. When Rome grew great, Mr. Clement reminds us, people of wealth congregated in cities for the pleasures of living to be found there, and hordes of the less fortunate followed, until eventually the rural population could not produce enough food to support the cities or enough young men to maintain the armies. And then, as mobs of consumers in the cities hungered, the government resorted to desperate measures to feed them—it bought grain and distributed it at less than cost; it inaugurated costly public works without regard to their economic need; it taxed the producers relentlessly and with ever-growing harshness. Finally the Roman citizen found he had traded away his freedom for "social security," but had neither. Tougher, self-disciplined invaders came along, and the Roman way of life disappeared in the western world. It is not too late—yet—for political and social and commercial leadership in this country to bring back to the people the pride of self-discipline and avert the development of the parallel to its disastrous conclusion.

EXTRA DIVIDENDS: Some suggestions are made in an editorial of ways in which modern self-contained portable power plants and other machinery available to the engineering and maintenance forces of a railroad may be of immense value in emergencies when commercial electric power fails. Such equipment pays dividends when used for the purposes for which it was intended, but it pays them at an immensely greater rate when it is available in unusual circumstances to keep things moving where otherwise almost a complete halt in operations would occur.

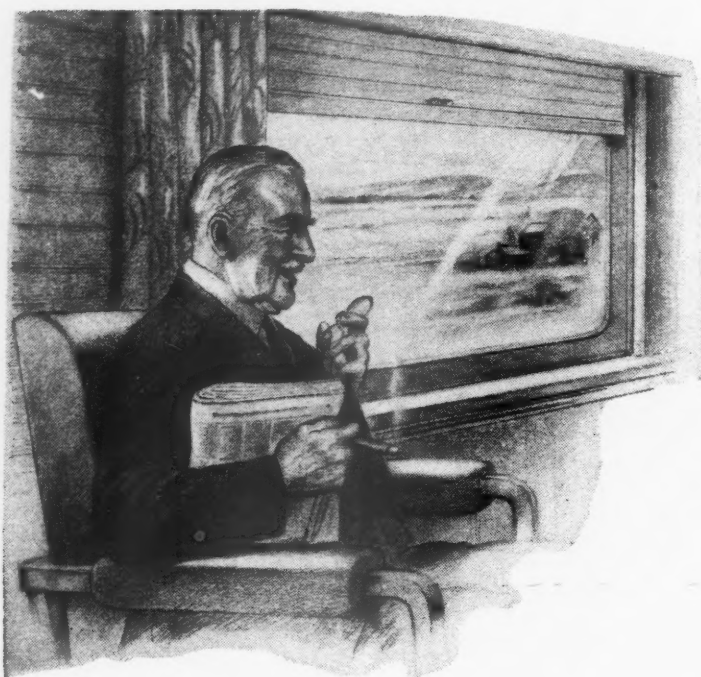
NEWS IN BRIEF: The I. C. C. has revived Agent King's authority to reroute loaded or empty freight cars. . . . June conventions of purchases and stores officers and superintendents have been called off. . . . Harold W. Burtress is the new president of the Chicago Great Western. P. J. Neff is the new chief executive officer of the Missouri Pacific. . . . The Veterans Administration has approved a nation-wide railway shop apprentice training program for veterans. . . . More improvements in long-distance passenger train schedules will go into effect June 2.

HOW TO GET CARS: It seems now to be clearly in the cards that a car shortage this fall is a definite possibility. If it develops, shippers and receivers of freight—already sorely tried by delays resulting from strikes in all directions and by excessive zeal on the part of some agencies of government to make commercial and industrial operations at a profit well nigh impossible—are going to be understandably perturbed. It behooves the railroads, an editorial this week points out, to see to it that the responsibility for such a shortage, if it develops, is not theirs alone. Orders can be placed for more cars. If the cars are not delivered because the builders are unable to get materials or labor, that will not be the railroads' fault. If they are not ordered they will not be built, and the number of cars available may very well fall short of demand. Domestic freight car orders in hand on May 1 totaled about 42,000, which plus foreign orders is barely more than a three-months job for the car building industry. Shippers are aware of these figures.

RIO GRANDE TUNNEL: A wartime job on the Denver & Rio Grande Western was a new Tennessee Pass tunnel in Colorado. As described in the article on page 1056, this project removed a bottleneck on the main-line crossing of the Rocky mountains, and made it possible to do away with many helper movements. The new 2,550-ft. tunnel is concrete lined throughout, and the timbering and lining techniques received special attention.

PRICE OF SURVIVAL: Transcending all the other urgent concerns of the railroads in these perplexed times, the success attending the wage negotiations in Washington was the week's big question. But in the wake of those negotiations are other questions equally important to the railroads, and probably, in the long run, equally important to the survival of the system of private enterprise in this country. Some of them are set forth in our leading editorial. The Railway Labor Act has been proved totally ineffective, and union leaders have demonstrated that it pays—them—to be tough. The government has demonstrated an equally illuminating lack of willingness to be firm with union leaders who defy peaceful bargaining processes, though some of its agencies are sufficiently positive in their opposition to the rate increases in which the railroads see their only chance to survive as private enterprise. It remains to be seen whether rate adjustments, if they should keep pace with cost increases, will reach a level at which a substantial amount of business will be lost to competitive forms of transportation.

UNINTERRUPTED GROWTH: Since 1939, despite war and domestic upheavals, the commercial airlines' passenger traffic and revenues have shown a steady increase, year upon year, the I. C. C. Statistics Bureau notes in its "Monthly Comment," the subject of a news story.



Employees' Thinking Is Important,

says

R. R. Rider

(Number five of a series)

A short time ago a survey was made to find out what railroaders thought of their work. I'm not a railroad man, but that survey opened my eyes, for I believe that some of the facts discovered apply to my business as well as railroads. I'm going to use those facts.

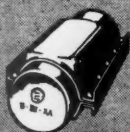
Two points were brought out in that survey. One was that railroaders generally like their work; would go into it again if they had to choose. Hope the people in my firm feel the same way; that's fine, valuable morale. But the other point's not so good. Too many railroad people either know nothing or have misconceptions about railroad financial and economic problems. They think railroads and stockholders net more than they actually do. They're unaware of the kind of competition railroads are up against. They're ignorant of a lot of things—this in spite of the fact that on the whole, railroaders are pretty intelligent.

Well, they don't know because they haven't been told. If they knew, they'd not only be better, more conscientious workers, but they would make fewer unjust demands upon their employers. And that's not all. The average man talks more about his job than about any other thing. If he's properly informed he's going to spread correct information; he'll do the kind of public relations work free that railroads are spending money to get across.

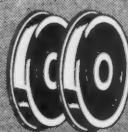
I'm assuming from now on that our workers aren't any better informed about our industry than railroaders are about theirs. Starting now I'm going to try to change that and I'd advise the railroads to do the same with their people.

Edgewater

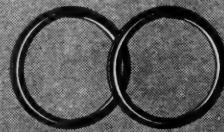
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RAILWAY AGE

Why There Is No Peace

Whether or not the strike of the brakemen and locomotive engineers has been settled by the time this issue of *Railway Age* is printed will not alter the inevitable conclusions to be drawn from events of the past ten days in the railroads' labor relations. Of such conclusions the following are among the more important:

1. The back-handed device of trying to prevent strikes by having the government seize the afflicted industry is no cure, because experience has shown that those charged with enforcing the law are indisposed to proceed with vigor against "strikes against the government." Either there are loopholes in the law or—what, in effect, amounts to the same thing—the enforcement authorities assume that there are, so government seizure brings no danger of punishment to leaders of walk-outs, and the strikes go on as they did before this devious contrivance to prevent them was invented.

2. The Railway Labor Act, as an effective means of settling labor controversies on the railroads, is a dead duck. The Act depends for its strength in preventing strikes on the assumption that the President will so mobilize public opinion in support of the findings of the "emergency boards" he appoints that parties to the controversies will rarely, if ever, have the courage not to accept the boards' recommendations. The flouting of these tribunals by the unions has now become standard routine—thanks to the light-hearted contempt with which Mr. Roosevelt treated board recommendations in the 1941 and 1943 disputes; and the failure of President Truman in the present controversy to do anything but follow weakly in the mischievous footsteps of his predecessor in office.

Recalcitrance Reaps Rewards

3. Proceedings before "emergency" fact-finding boards—instead of being the final terminal in the settlement of controversies, as the law contemplates—have been turned into a mere way-station. The standard end step in the process has now become a strike threat or an actual walk-out, with Presidential emissaries or the President himself intervening to stultify his "fact-finding" tribunal by inducing the railroads to agree to terms more liberal than those promulgated as just by the "fact-finders." Since union leaders have discovered that they can shove on past the "fact-finders" with no danger whatever, and with handsome rewards for their refusal

to abide by peaceful processes, inter-union competitive pressure has probably now made it politically impracticable for any union leader to accept as final an award by an "emergency" or arbitration board. Unless and until the country gets a President with enough courage and consistency to put the prestige of his office behind his "fact-finding" boards as the spirit of the law requires, the machinery of the Railway Labor Act will not and cannot settle disputes, but can only prolong them.

4. The Administration, while plainly insistent that the railroads, in the interest of domestic peace, grant the strikers more than its own fact-finding board says is reasonable, at the same time has permitted or encouraged the O. P. A. and the Department of Agriculture to appear before the Interstate Commerce Commission in opposition, even, to granting the railroads rate relief to compensate in part for wage increases already awarded under the terms of the Railway Labor Act.

"Squeeze Play" on Earnings

5. The result of the foregoing developments is that the railroads are being subjected to a "squeeze play" on their earnings which, unless the I. C. C. is much more courageous and realistic than other branches of the government have been, will soon entirely eliminate net earnings from the railway business—with disastrous effects on employment, on railway service, on the national defense, and on the continuance of the railroads as private enterprise.

6. Even if the I. C. C. should grant rate increases with reasonable promptness, and of sufficient liberality to compensate fully for increases in expenses forced on the railroads by the government's policy in dealing with organized labor, it still remains possible and even probable—with wage rates now being in actual effect dictated by the most belligerent elements in the unions—that railway costs may be forced upward beyond the point where, under competition, the railroads can thrive or even exist as private enterprise.

Those with the interest of the railroads or the country at heart can derive no satisfaction from the behavior of some railroad employees and their leaders during the past fortnight. But it should not be overlooked that John L. Lewis and other bellicose labor leaders have

been taking members away from the railway unions. The Administration in Washington has put a premium on belligerency and irresponsibility in labor union leadership. Much as it might have been hoped that the railway unions would be sufficiently far-seeing and patriotic to resist being driven along the road to conflict and chaos, primary responsibility rests on the politicians and not on the railway unions. It would be a miracle if peace, productivity, and prosperity should ensue from a political set-up deliberately or blunderingly contrived to offer tempting rewards to the promoters of conflict, idleness, and waste; and to penalize social-minded behavior.

The only heartening aspect of the sorry business is that the railroads are not the sole victims of this political poltroonery—all industry and the country as a whole are suffering from it, and if the condition is remedied or improved for industry as a whole, labor relations on the railroads will also improve. The situation, that is, has spread to the railroads by contagion from "outside"—and has not been incubated in the railroad industry.

Not Only for Car Officers

The program for the annual meeting of the Car Department Officers' Association at Chicago next September has just been released, revealing that this forward-looking national association intends to develop specific information of value on detailed car matters. Probably even more important, it intends to analyze car conditions with a view to giving improved service to passengers and shippers, reducing car operating expense and economizing in maintenance cost. In other words, it looks as if the meeting would be of interest to general and operating officers as well as to car officers and mechanical department supervisors.

This voluntary association of carmen is coordinating its work with—and has the full approval of—the Mechanical Division, Association of American Railroads, as is indicated by specific comments from the general committee of the latter group which are both commendatory and challenging. For example, one member of the committee says that work performed by the C. D. O. A. has been a distinct asset to railroads as a whole and should be continued. Another says that research work carried on by these practical carmen is far-reaching in its effect upon car department operation. Still another says that the association fills an important place in the equipment maintenance field and deserves every practicable support.

Railroads now have a large inventory of old and more or less worn-out passenger cars which rendered effective war-time service, but are almost entirely unfitted for modern requirements. One of the objectives of the C. D. O. A. meeting next September will be to develop considerations to determine which of these cars should be retired and which, if any, should be modernized. The vital subjects of centralized wheel shops and car lubrication practices will be discussed; also the effective use of car department automotive equipment; light repair track location and equipment with a view to quick return of freight cars to service; painting of freight cars; interchange rules; loading rules; and other kindred questions.

Present plans call for a three-day full-member meeting of the C. D. O. A. at Chicago on September 4-6 inclusive, in conjunction with the Railway Fuel & Traveling Engineers' Association, Locomotive Maintenance Officers' Association and Master Boiler Makers' Association. With annual meetings suspended since 1941, it would be too bad if industrial or railroad conditions should arise to cause cancellation of the 1946 meeting, for without annual meetings it is difficult for voluntary supervisory associations to continue their existence, much less render effective service to the railroads.

Extra Dividends from Maintenance Machines

Like all industries, the railroads are highly dependent today for their continued and successful operation on commercial electric power. But they are finding that, because of untoward emergencies such as strikes, floods and hurricanes, such power can be subject to sudden and unexpected stoppages, with resulting serious obstacles to continued operation. Under such conditions, without standby units, lights go out in stations, office buildings, shops and elsewhere; motor-driven compressors cease pumping air for train lines or for the operation of electro-pneumatic switches; signal systems and interlockings cease to function; turntables lose their animation; and a multitude of other power-operated devices come to a standstill.

Here is where the maintenance man with his machines comes into the picture. Long ago it was recognized generally that, if maintenance work was to be placed on an efficient and economical basis, it would be necessary to enlist the aid of the internal combustion engine in performing the various operations involved, and it was further evident immediately that practically all machines for this work must be readily portable to permit them to be moved from job to job or along with the work as it progressed. This is why today every progressive maintenance department has at its command numbers of self-contained portable power plants, including engine-driven generators and compressors, and other prime movers such as crawler tractors, which are so designed and mounted that the particular form of power furnished, whether electrical, pneumatic or mechanical, can be made available practically wherever it is needed.

Characteristics of many of these maintenance power plants make them ideally suited for use as stand-by units in the event of emergencies that cut off commercial electric power, and many railroads have been quick to see their usefulness for such purposes. Portable generators, for instance, have frequently saved the day during power failures by providing electricity for lighting stations and other buildings, for operating signals and switch machines, and for performing numerous other essential functions. Portable compressors, too, have at times supplied the air for train lines in yards and for operating electro-pneumatic switch machines when existing stationary compressors have been rendered inoperative because of power stoppages. Likewise, crawler units of various types have helped to keep

things moving by providing power for such purposes as operating turntables and handling coal that would otherwise be hoisted by motor-driven equipment.

The return to the owning railroad on the investment in machines which can be used in such emergencies is incalculable, and may be looked upon as an extra dividend in addition to the regular dividend produced by the machines when they perform the work for which they were designed.

Freight Car Supply

L. M. Betts, manager of the Railway Relations Section of the Car Service Division, A. A. R., in an April address expressed the belief that the railroads would order between 125,000 and 150,000 freight cars during the current year, and other authorities on the subject of the carriers' need for new freight equipment place their needs at upwards of 140,000. On May 1 there were orders for 32,000 domestic freight cars on the books of the car manufacturers, plus some 10,000 additional being built in railroad shops.

The car builders obviously cannot build cars in a quantity sufficient to meet the need unless, first, the railroads place orders for them. There are those who will say, with some truth, too, that, with present shortages of labor and steel, it takes more than orders to produce cars. But it is still true that 50 per cent of deliveries on 100,000 orders is a larger number than, say, even 75 per cent of deliveries on only 32,000 orders. If car shortages are to persist—or perhaps even grow considerably worse, as may happen in the fall if, by chance, union and O. P. A. brakes on production should be removed—the railroads would be in a far better position if it were evident that these shortages arose entirely from a scarcity of materials, rather than, in part, from unwarranted conservatism and delay on the part of the railroads in placing orders.

Car builders cannot go out and start scrimmaging for materials until they have orders in hand, and the present quantity of orders on their books does not warrant them in seeking anything like the volume of materials they will require if the railroads should call for as much new freight equipment as well-informed authorities estimate they will need. There has been some tendency to question the quantity of foreign business the car builders have accepted—there having been 44,000 such orders on builders' books on May 1—which total, roughly speaking, should be cut in half to equate the foreign cars to the larger American units. In other words, foreign orders on the builders' books, in effect, totaled only about 22,000 on May 1. Adding domestic orders for 32,000, a grand total of 54,000 is reached—which is only a little more than three months' capacity output by the domestic car building industry. From such figures, it is evident that foreign orders cannot be much of a hindrance to deliveries of freight cars for domestic use.

There are, quite likely, other foreign orders in prospect. It is the practice of the car building industry to fill the orders of its customers according to the relative dates on which these orders are received. If any American railroads have misgivings lest foreign orders pre-

vent the completion of domestic cars as soon as they are needed, they can ease their minds of all such fears by placing their own orders now, before additional foreign business finds its way to the builders' books.

Car orders in a volume commensurate with the probable need will not, it is true, guarantee the delivery of all these cars in time to meet the urgent demand for them—but, without such orders, the number available will certainly be less, and possibly far less, than it would be if orders in adequate volume were placed. The responsibility for providing as many cars as shippers are likely to require should be shifted to the manufacturing industry, which can give a satisfactory explanation for serious shortages if they should occur, as the railroads cannot do if they have not even ordered cars enough to meet the demand for them.

Good Housekeeping

Long-run railroad problems and objectives cannot and should not be crowded entirely aside just because there are so many immediate problems which are acute. One of these long-range problems is that of establishing passenger service on a dependably remunerative level.

The new president of the Monon, John W. Barriger, has announced that an aggressive passenger policy will be followed by that railway. Since the Monon has not in recent years regarded passenger business as a potentially lucrative service, the developments on this property will be followed with interest. It has long been Mr. Barriger's belief that ingenuity, hard work and excellent service should be able to produce a paying passenger business. Some railways in the years before the war put this belief to the test with results which, on the whole, were encouraging.

The Illinois Central is one of several railways which is conducting a campaign among its employees to enlist their cooperation in improving passenger service. An efficient school for training dining car cooks and waiters has been conducting classes for some months—with great interest and enthusiasm on the part of the employees. Recently a number of leaflets have been broadcast to all employees having anything to do with passenger service. The latest of these begins with the statement, "Good housekeeping on the Illinois Central means it must be said of us that we keep a house our friends will like to visit." The leaflet continues to the effect that good hosts are invariably courteous and friendly. It stresses cleanliness, neatness and orderliness in everything—personal appearance, passenger and freight equipment, station facilities, shops, stores, yards and offices. It closes with the admonition, "We must govern our every act by thought of what that act will mean in the estimation of our patrons."

The post-war months have brought many difficulties for the railways—shortages of many things, including net earnings—but among these shortages there has been none in ingenuity. There is no O. P. A. ceiling or other governmental restriction on the amount of ingenuity that can be applied to any given railway problem. The quality is available in liberal quantity, which is fortunate in view of the short rations in almost everything else.

Wage Compromise Proposed by Truman

White House conferences continued as strike hour approached following rejection by Whitney and Johnston of President's first proposition

WASHINGTON, D. C.

SETTLEMENT of the wages and rules controversy threatening to culminate at 4 P. M. on May 23 in the strike of trainmen and engineers which was postponed from May 18 had not been reached when this issue went to press. A new series of conferences was being held with the parties at the White House, which was reported to have advanced a second compromise proposal after A. F. Whitney, president of the Brotherhood of Railroad Trainmen, and Stanley Johnston, grand chief engineer of the Brotherhood of Locomotive Engineers, were reported to have rejected an earlier proposition made by the President on the previous day and accepted then by the railroads and by the 18 non-striking unions.

Terms of the first Presidential proposal were withheld by the White House, but it would have provided for an 18½ cents per hour wage increase and a withdrawal of the rules demands for one year, according to a Whitney-Johnston statement which called it "less favorable" than the emergency board findings which recommended for B. of R. T. and B. of L. E. members a 16 cents per hour wage increase and some changes in working rules.

Postponement for five days of the nationwide strike of railroad trainmen and engineers, which had already got under way at some points, came in dramatic fashion on May 18 when President Truman announced less than five minutes before the 4 p.m. walk-out hour that A. F. Whitney, president of the Brotherhood of Railroad Trainmen, and Alvanley Johnston, grand chief engineer of the Brotherhood of Locomotive Engineers, had thus responded to a telephoned request by the President, who assured the union leaders of his confidence that "further progress could be made toward a settlement if negotiations with the railroads were resumed." Meanwhile, the railroads had come under government control 24 hours earlier, the President having issued a May 17 executive order taking them over as of 4 p. m. that day and assigning the job of operating them to Director J. Monroe Johnson of the Office of Defense Transportation.

Colonel Johnson followed through promptly to appoint Charles H. Buford



Charles H. Buford

federal manager of the seized carriers and to delegate to the appointee all power and authority carried in the Presidential order. Mr. Buford, who was on hand in Washington to assume his new duties, recently became executive vice-president of the Chicago, Milwaukee, St. Paul & Pacific after several years of service, including the war period, as vice-president of the Association of American Railroads in charge of its Operations and Maintenance Department.

Told to Replace Strikers

O. D. T.'s determination to carry out its mandate to "assure to the fullest possible extent continuous and uninterrupted transportation service" was indicated by the telegram which Federal Manager Buford sent out to the railroads shortly before the time set for the strike. "In the event of a strike," the telegram said, "we expect railroad officers to take any necessary action, including the recruiting of new men, to maintain essential rail service and, in doing so, if there is any threatened disturbance, property damage, or interference with employees who want to work, which you cannot control locally, notify the commanding general of the service command in which the

disturbance occurs, explaining the situation to him and giving an estimate of the military personnel required for protection." At the same time the walkouts at various points as a result of confusion attending the last-minute postponement seem to have demonstrated that B. of R. T. and B. of L. E. members generally would have obeyed the strike order, despite government seizure.

The seizure order was signed by President Truman in the presence of Messrs. Whitney and Johnston, who were at the White House to report on the failure of their latest conferences with management to result in an agreement settling the controversy which brought on the strike call. As the President pointed out in a statement which he made after signing the seizure order, the controversy arose out of the refusal of the B. of R. T. and B. of L. E. to accept the findings of the emergency board which recommended recently that the employees represented by those unions be given the same 16 cents per hour wage increase that was awarded in the arbitration proceedings to employees represented by the other three operating brotherhoods and 15 non-operating unions.

Roads Accept Findings

Management agreed to accept the emergency board's findings, which also called for a few changes in working rules, but Messrs. Whitney and Johnston are reported to have demanded an 18 per cent wage increase with a minimum raise of 18 cents per hour, plus the 44 rules changes originally asked. That proposal would increase wages per basic "day" by amounts ranging from \$1.44 to above \$2.00, as compared with the flat \$1.28 recommended by the emergency board, while the rules changes would cost \$800,000,000 a year, according to management estimates. The original wage demand was for a 25 per cent increase with a minimum raise of \$2.50 per basic "day."

Last week's developments in the controversy began with the May 14 series of separate conferences which President Truman held in turn with Messrs. Whitney and Johnston; executives of the three other operating brotherhoods which have launched a new proceeding to obtain for their members another 14 cents

per hour increase in addition to the arbitration award of 16 cents; and representatives of railroad management.

The non-striking brotherhood representatives were C. J. Goff, assistant to the president, Brotherhood of Locomotive Firemen & Enginemen; H. A. Fraser, president of the Order of Railway Conductors; and T. C. Cashen, president of the Switchmen's Union of North America. The management group, headed by J. J. Pelley, president of the A. A. R., included also Daniel P. Loomis, H. A. Enochs, and John B. Parrish, chairmen, respectively, of the western, eastern and southeastern conference committees, and W. T. Faricy, chief counsel for the committees.

Out of these sessions came an agreement of the parties to carry on negotiations and report back to the President by May 17. The negotiations broke down after the carrier representatives rejected the Whitney-Johnston counter proposal and announced that they would stand on their acceptance of the emergency board recommendations. The management position was set forth in a May 16 statement issued by the conference committees.

Management's Position

Noting that the conferences terminated when the two union executives "declined to negotiate the wage and rules

dispute on the basis of the recommendations of President Truman's emergency board," the statement, "in order to obviate any possibility of misunderstanding as to the carriers' position," went on to quote a statement which the conference committees had handed to Messrs. Whitney and Johnston. The latter read as follows:

"There is one thing that the carriers desire to clear up definitely at this conference, if any further clarification is needed. After the last Chicago meeting, your organizations were quoted in some newspaper accounts as saying that the carriers were not willing to carry out the recommendations of the President's emergency board. We want to

EXECUTIVE ORDER

SIGNED BY PRESIDENT TRUMAN MAY 17

Possession, Control, and Operation of Certain Railroads

Whereas after investigation I find and proclaim that as a result of labor disturbances there are interruptions, or threatened interruptions, of the operations of the transportation systems, plants, and facilities owned or operated by carriers by railroad named in the list attached hereto and made a part hereof; that the war effort will be unduly impeded and delayed by such interruptions; that it has become necessary to take possession and assume control of the said transportation systems, plants, and facilities for purposes that are needful or desirable in connection with the present wartime emergency; and that the exercise, as hereinafter specified, of the powers vested in me is necessary to insure in the national interest the operation of the said transportation systems, plants, and facilities.

Now, therefore, by virtue of the power and authority vested in me by the Constitution and laws of the United States, including section 9 of the Selective Training and Service Act of 1940 as amended by section 3 of the War Labor Disputes Act (57 Stat. 164), the Act of August 29, 1916 (39 Stat. 619, 645), and the First War Powers Act, 1941 (55 Stat. 838), as President of the United States and Commander in Chief of the Army and Navy, it is hereby ordered as follows:

1. Possession and control of the transportation systems, plants, and facilities owned or operated by the carriers by railroad named in the list attached hereto and made a part hereof are hereby taken and assumed, through the director of the Office of Defense Transportation (hereinafter referred to as the director), as of 4:00 o'clock p. m., May 17, 1946; but such possession and control shall be limited to real and personal property and other assets used or useful in connection with the operation of the transportation systems of the said carriers. If and when the director finds it necessary or appropriate to carry out the purposes of this order, he may, by appropriate order, take possession and assume control of all or any part of any transportation system of any other carrier by railroad located in the continental United States.

2. The director is directed to operate, or arrange for the operation of, the transportation systems, plants, and facilities taken under or pursuant to this order in such manner as he deems necessary to assure to the fullest possible extent continuous and uninterrupted transportation service.

3. In carrying out the provisions of this order the director may act through or with the aid of such public or private instrumentalities or persons as he may designate, and may delegate such of his authority as he may deem necessary or desirable, with power of successive redelegation. The director may issue such general and special orders, rules and regulations as may be necessary or appropriate to carry out the provisions, and to accomplish the purposes, of this order. All federal agencies shall comply with the directives of the director issued pursuant to this order and shall cooperate to the fullest extent of their authority with the director in carrying out the provisions of this order.

4. The director shall permit the manage-

ment of carriers whose transportation systems, plants, and facilities have been taken under, or which may be taken pursuant to, the provisions of this order to continue their respective managerial functions to the maximum degree possible consistent with the purposes of this order. Except so far as the director shall from time to time otherwise provide by appropriate order or regulation, the boards of directors, trustees, receivers, officers, and employees of such carriers shall continue the operation of said transportation systems, plants, and facilities, including the collection and disbursement of funds thereof, in the usual and ordinary course of the business of the carriers, in the names of their respective companies, and by means of any agencies, associations, or other instrumentalities now utilized by the carriers.

5. Except so far as the director shall from time to time otherwise determine and provide by appropriate orders or regulations, existing contracts and agreements to which carriers whose transportation systems, plants, and facilities have been taken under, or which may be taken pursuant to, the provisions of this order are parties, shall remain in full force and effect. Nothing in this order shall have the effect of suspending or releasing any obligation owed to any carrier affected hereby, and all payments shall be made by the persons obligated to the carrier to which they are or may become due. Except as the director may otherwise direct, there may be made, in due course, payments of dividends on stock, and of principal, interest, sinking funds, and all other distributions upon bonds, debentures, and other obligations; and expenditures may be made for other ordinary corporate purposes.

6. Subject to applicable provisions of existing law, including the orders of the Office of Defense Transportation issued pursuant to Executive Order 8989, as amended, the said transportation systems, plants, and facilities shall be managed and operated under the terms and conditions of employment in effect at the time possession is taken under this order. The director shall recognize the right of the workers to continue their membership in labor organizations, to bargain collectively through representatives of their own choosing with the representatives of the owners of the carriers, subject to the provisions of applicable statutes and executive orders, as to matters pertaining to wages to be paid or conditions to prevail after termination of possession and control under this order; and to engage in concerted activities for the purpose of such collective bargaining or for other mutual aid or protection, provided that in his opinion such concerted activities do not interfere with the operation of the transportation systems, plants, and facilities taken hereunder, or which may be taken pursuant hereto.

7. Except as this order otherwise provides and except as the director may otherwise direct, the operation of the transportation systems, plants, and facilities taken hereunder, or which may be taken pursuant hereto, shall be in conformity with the Interstate Commerce Act, as amended, the Railway Labor

Act, as amended, the Safety Appliance Acts, the Employers' Liability Acts, and other applicable federal and state laws, executive orders, local ordinances, and rules and regulations issued pursuant to such laws, executive orders, and ordinances.

8. Except with the prior written consent of the director, no receivership, reorganization, or similar proceeding affecting any carrier whose transportation system, plants, and facilities are taken hereunder, or which may be taken pursuant hereto, shall be instituted, and no attachment by mesne process, garnishment, execution, or otherwise shall be levied on or against any of the real or personal property or other assets of any such carrier, provided that nothing herein shall prevent or require approval by the director of any action authorized or required by any interlocking or final decree of any United States court in reorganization proceedings now pending under the Bankruptcy Act or any equity receivership cases now pending.

9. For the purposes of paragraphs 1 to 8, inclusive of this order, there are hereby transferred to the director the functions, powers, and duties vested in the Secretary of War by that part of section 1 of the said Act of August 29, 1916, reading as follows:

"The President, in time of war, is empowered, through the Secretary of War, to take possession and assume control of any system or systems of transportation, or any part thereof, and to utilize the same, to the exclusion as far as may be necessary of all other traffic thereon, for the transfer or transportation of troops, war material and equipment, or for such other purposes connected with the emergency as may be needful or desirable."

10. The director may request the Secretary of War to furnish protection for persons employed or seeking employment in the plants, facilities, or transportation systems of which possession is taken hereunder, or which may be taken pursuant hereto, to furnish protection for such plants, facilities, and transportation systems, and to furnish equipment, manpower, and other facilities or services deemed necessary by the director to carry out the provisions, and to accomplish the purposes, of this order. The Secretary of War is authorized and directed, upon such request, to take such action as he deems necessary to furnish such protection, equipment, manpower, or other facilities or services.

11. From and after 4:00 o'clock p. m., on the said 17th day of May, 1946, all properties taken under this order shall be conclusively deemed to be within the possession and control of the United States without further act or notice.

12. Possession, control, and operation of any plant or facility, or of any transportation system, or any part thereof, or of any real or personal property taken under this order, or which may be taken pursuant hereto, shall be terminated by the director when he determines that such possession, control, and operation are no longer necessary to carry out the provisions, and to accomplish the purposes, of this order.

make it clear to you gentlemen that we are willing to carry out those recommendations. The specific rules recommended by the board announce principles which afford a basis for getting together on language that will carry them out and make them workable.

"The willingness of the carriers to accept the board's recommendations and agree with the employees upon the rules specifically recommended by the board should be accompanied by a like willingness of the organizations to accord to the carriers the same treatment as to the rules which the board found that the carriers should have.

"As to wages, three boards have found that an increase of 16 cents per hour, effective January 1, 1946, is the proper award under the stabilization program. The railroads stand ready to settle on this basis, but cannot go beyond it."

The conference committees' statement went on to report that Messrs. Whitney and Johnston "said they would not accept the board's recommendations . . .

and that the strike would take place as set." It also reported that "negotiations with the organizations representing the conductors, firemen and switchmen, which were resumed simultaneously with the negotiations with the engineers and trainmen, are continuing."

Seizure Order Signed

Then came the May 17 White House meetings at which the three groups which met with the President on the 14th reported back to Mr. Truman. As noted above, he signed the seizure order when Messrs. Whitney and Johnston told him of the impasse which their negotiations with the carriers had reached. Upon leaving the Executive office, the two union leaders were cautious in their comments, a caution seemingly prompted by a determination to avoid any possible violation of the War Labor Disputes Act (the so-called Smith-Connally Act) which makes it unlawful for any person to encourage strikes against industries in possession of the government.

Earlier in the week Messrs. Whitney and Johnston had exempted the Illinois Central (under government control since last August) from the strike call.

Colonel Johnson nevertheless brought the I. C. under Federal Manager Buford's direction. He issued a May 17 notice advising that road of Mr. Buford's appointment as its federal manager and of the revocation of the appointment of Homer C. King, who had been serving in that capacity since last October. The Toledo, Peoria & Western was not included in the roads which the executive order directed Colonel Johnson to take over.

Three hundred and thirty-seven roads were taken over by the executive order, which also authorized O. D. T. Director Johnson, if he found it necessary, to "take possession and assume control of all or any part of any transportation system of any other carrier by railroad located in continental United States." It further directed that railroad managements be permitted to continue their managerial functions "to the maximum degree possible," and required the Secretary of War to furnish protection that might be requested by O. D. T. The statement which President Truman issued when he signed the order read as follows:

"I have today by Executive Order directed J. Monroe Johnson, director of the Office of Defense Transportation, to take over the country's railroads and operate them in the name of the United States government.

"A strike has been called for 4 p. m. tomorrow by two of the 20 railroad labor organizations—the Brotherhood of Locomotive Engineers and the Brotherhood of Railroad Trainmen. These two have declined to accept the findings and recommendations of an emergency board created by the President under the Railway Labor Act. In the strike situation thus confronting us, governmental seizure is imperative for the protection of the rights of our citizens.

"It is essential to the public health and to the public welfare generally that every possible step be taken by the government to assure to the fullest possible extent continuous and uninterrupted transportation service."

"I call upon every employee of the railroads to cooperate with the government to this end by remaining on duty.

"I have asked the parties involved to continue negotiations with the view to reaching an agreement whereby the railroads can be returned to private ownership at the earliest possible date."

Pelley Promises Cooperation

Upon being advised of the seizure order, A. A. R. President Pelley said that "President Truman acted in the only

Federal Manager Buford's Notice and Order No. 1

To each carrier by railroad named in the Executive Order of the President of the United States, dated May 17, 1946, concerning possession, control, and operation of certain railroads:

1. By order of the director of the Office of Defense Transportation, dated May 17, 1946, the authority vested in said director by Executive Order of the President of the United States, dated May 17, 1946, whereby possession and control of your transportation system, plants, and facilities are taken and assumed by the United States as of 4:00 o'clock p. m., May 17, 1946, has been duly delegated by said director to the undersigned as Federal Manager of Government Controlled Railroads.

2. Until further order, you are hereby directed to continue operations in the usual and ordinary manner and course of business as a going enterprise, in your own name, and by means of the instrumentalities, agents, officers, and employees customarily employed by you, as fully as if possession and control had not been taken and assumed by the United States, subject, however, to the terms of said executive order, and to all general and special orders, rules, and regulations which may be issued thereunder. Title to the properties and other assets of which possession has been taken remains in the owners thereof. Possession by the United States is not exclusive and the United States asserts, and will assert, only such control over the properties in its limited possession as may be necessary to accomplish the purposes of the executive order.

3. All personnel, officers, agents, and employees, employed by you in the operation of your transportation system, plants, and facilities, are called upon to resume or continue the performance of their usual duties and in the customary manner until otherwise ordered. No such officer, agent, or employee shall be deemed to be an official or employee of the United States.

4. Subject to the terms of the executive order, wage scales and working conditions in effect on the effective date of the executive order shall be maintained and full recognition shall be given to the rights of the employees and all classes thereof. All deductions for the benefit of employees now being made by law or agreement, including insurance payments, railroad retirement and unemployment compensation deductions, and other deductions of every kind, and all arrangements governing the payment of wages, including bond purchase plans, shall be continued, subject to any legal right of dis-

continuance.

5. Subject to the terms of the executive order, the operation of the carrier shall be in conformity with the Interstate Commerce Act, as amended, the Railway Labor Act, as amended, the Safety Appliance Acts, and Employers' Liability Acts, and other applicable federal and state laws, executive orders, local ordinances, and rules and regulations issued pursuant to such laws, executive orders, and ordinances.

6. The accounts of the carrier will continue to be kept in the customary manner. The carrier will assume full financial responsibility for the operation of its properties; will retain all income or proceeds resulting from such operations; and will pay all expenses incurred by the carrier in connection with such operations.

7. Until further order, carriers will remain subject to suit as heretofore and to the levy of attachments by mesne process, garnishment, execution or otherwise, on or against the properties or other assets of such carriers, but no receivership, reorganization, or similar proceedings affecting any carrier whose transportation system, plants, and facilities are or may be taken under the executive order shall be instituted without the prior written consent of said director. Nothing herein shall be deemed to require approval of any action authorized or required by any interlocutory or final decree of any United States Court in reorganization proceedings now pending under the Bankruptcy Act or any equity receivership cases now pending.

8. Any carrier which objects to assuming responsibility for any action which it is required to take pursuant to this order, or to any other order, rule, regulation, or direction issued by the director of the Office of Defense Transportation, the federal manager of government controlled railroads, or by any duly authorized representative of the director or the federal manager, shall protest such order, rule, regulation, or direction, to the federal manager, in writing. . . .

9. A copy of said executive order and a copy of this notice and order shall be posted by each carrier on each bulletin board maintained by the carrier at its principal offices, division and section headquarters, stations, depots, shops, and yards.

10. Communications concerning this order should be addressed to Federal Manager of Government Controlled Railroads, Interstate Commerce Commission Building, Washington 25, D. C.

Issued at Washington, D. C., this 17th day of May, 1946.

way open to him in an effort to keep transportation service going, and the railroads are going to do their level best to cooperate with him."

The May 17 scene then shifted to headquarters of O. D. T. in the Interstate Commerce Commission building, where Director Johnson held a press conference shortly after the seizure order became effective. He first introduced Federal Manager Buford as one who had "spent the entire war here as vice-president of the Association of American Railroads." Colonel Johnson added that Mr. Buford was thus "thoroughly familiar" with war-time operations of the railroads, which is "quite a distinct thing" from knowing railroad operations generally.

The colonel went on to say that the strike threat came at a "very serious time in our total economy and in our transportation economy." He pointed out that, even throughout the bituminous miners' strike, box car loadings remained as high as the war peaks, while coal movements were already 65 million tons below "normal."

"I can imagine no greater disaster to the United States than if the railroads stopped moving," the O.D.T. director continued. "We got a slight experience of it when we got two days into the recent embargo."

In response to questions, Colonel Johnson said that, if Messrs. Whitney and Johnston did not rescind their strike orders, the next step would be to wait and see how B. of R. T. and B. of L. E. members behave at the following day's walkout hour. If they quit, he continued, it would be "a very perilous time in transportation." Pressed by newspapermen for an answer to their question as to what he would then do, Colonel Johnson replied that he would "continue to run the railroads."

"How?" was the reporters' next question.

To which the colonel replied that "firemen can run trains." In this connection, however, it was pointed out that members of the three non-striking brotherhoods, while continuing to perform their own work, might be expected to refuse to take the places of strikers. Later on Colonel Johnson said he had "great hopes" that the B. of R. T. and B. L. of E. members would work for the government, but he conceded that, of course, they were "only hopes."

Government's Liability

Questioning of the O.D.T. director then turned to the matter of the government's liability under the seizure order. He pointed out that railroad men would continue to run the railroads—the government was "not taking their earnings nor paying their expenses." Thus the

colonel assumed that there would be no government liability unless O.D.T. issued an order to which the railroads objected. He could not recall any such order having been issued to the Illinois Central management since that road was taken over nine months ago.

Meanwhile Colonel Johnson had sent telegrams to railroad managements, to Messrs. Whitney and Johnston, and to the non-striking brotherhoods; and Federal Manager Buford had issued his Notice and Order No. 1, reproduced herein.

The telegram to railroad managements advised them of the seizure order and of the Buford appointment, and then continued as follows: "On behalf of the government of the United States I request the company to continue operations in the normal manner. Please advise all persons employed by your company of the action of the President by posting immediately in appropriate places on your transportation system a notice over the signature of Charles H. Buford, federal manager of government controlled railroads, as follows: 'Notice to all executives and employees, effective at 4 o'clock p.m., May 17, 1946, the transportation system, plants, and facilities of the (here insert name of your company) are in the possession and control of the United States by executive order of the President dated May 17, 1946. The government expects all persons employed by the company to fully and faithfully discharge their duties as such employees on all occasions and to refrain from taking any action which might lead to the curtailment or suspension of service vitally needed at this time. Provision is made in the President's order for furnishing protection for employees if such protection is needed.'"

Asked Rescinding of Order

The O.D.T. telegram to the striking brotherhoods requested them to rescind the strike order, and called their attention to the provisions of the War Labor Disputes Act. This was one of the laws relied on by the seizure order which also mentioned the Act of August 29, 1916, the Selective Training and Service Act, and the First War Powers Act of 1941. O.D.T. Director Johnson's May 17 wire to the non-striking brotherhoods merely said that he would "appreciate your cooperation in preserving and continuing rail service."

On the forenoon of May 18, Colonel Johnson held a conference with representatives of O.D.T., the Interstate Commerce Commission, airlines, water carriers, highway carriers, and the Army and Navy to request them, as the O.D.T. announcement put it, "to formulate plans for utilization of non-rail transportation facilities in case there is a stoppage of

rail transportation." Meanwhile there had been reports of Post Office Department plans to move mail with Army planes and trucks, but the War Department specifically denied published reports to the effect that the Air Transport Command was preparing to "commandeer" civilian airlines.

The March 18 telephone conversations between President Truman and Messrs. Whitney and Johnston, who had returned from Washington to their Cleveland, Ohio, headquarters, occurred between 3 p.m. and 4 p.m., and the President's announcement of the postponement came less than five minutes before the "zero" hour, as noted above. At a hastily-called press conference, Mr. Truman read this statement: "The Engineers and Trainmen have agreed to move the strike date from 4 p.m. May 18 to 4 p.m., Thursday, May 23, 1946. This action is in response to a request from the President, who gave his assurances that he was confident further progress could be made toward a settlement if negotiations with the railroads were resumed. The Trainmen's key word is Convention. The Engineers' key word is Johnston." The "key words" in the President's statement were code words by which members of the two brotherhoods were advised that the strike order was not to become effective.

Relief at O. D. T.

News of the postponement, telephoned from the White House to O.D.T. a couple of minutes before 4 p.m., brought a feeling of relief from the tension of waiting to see what was going to happen when the hour of 4 struck. "I am glad to hear it," said Federal Manager Buford. "I hope employees and management can get together without penalizing the American people." Colonel Johnson issued this statement:

"We have been at work all day perfecting our plans for running the American railroads with as little initial reduction of service as possible, and we will continue to develop these plans and have them ready so that, if the strike does come after the postponement, it will cause minimum damage to American transportation.

"It is very gratifying to me that the strike has been suspended. I sincerely hope that during the five days of suspension the differences between management and employees will be settled and that there will be no further inconvenience to transportation."

Thus has a strike threat growing out of a wage controversy brought on government control of the railroads for the second time within three years. The carriers were taken over by the late President Roosevelt on December 27,

(Continued on page 1061)

Two Important Tunnels Built in 1945

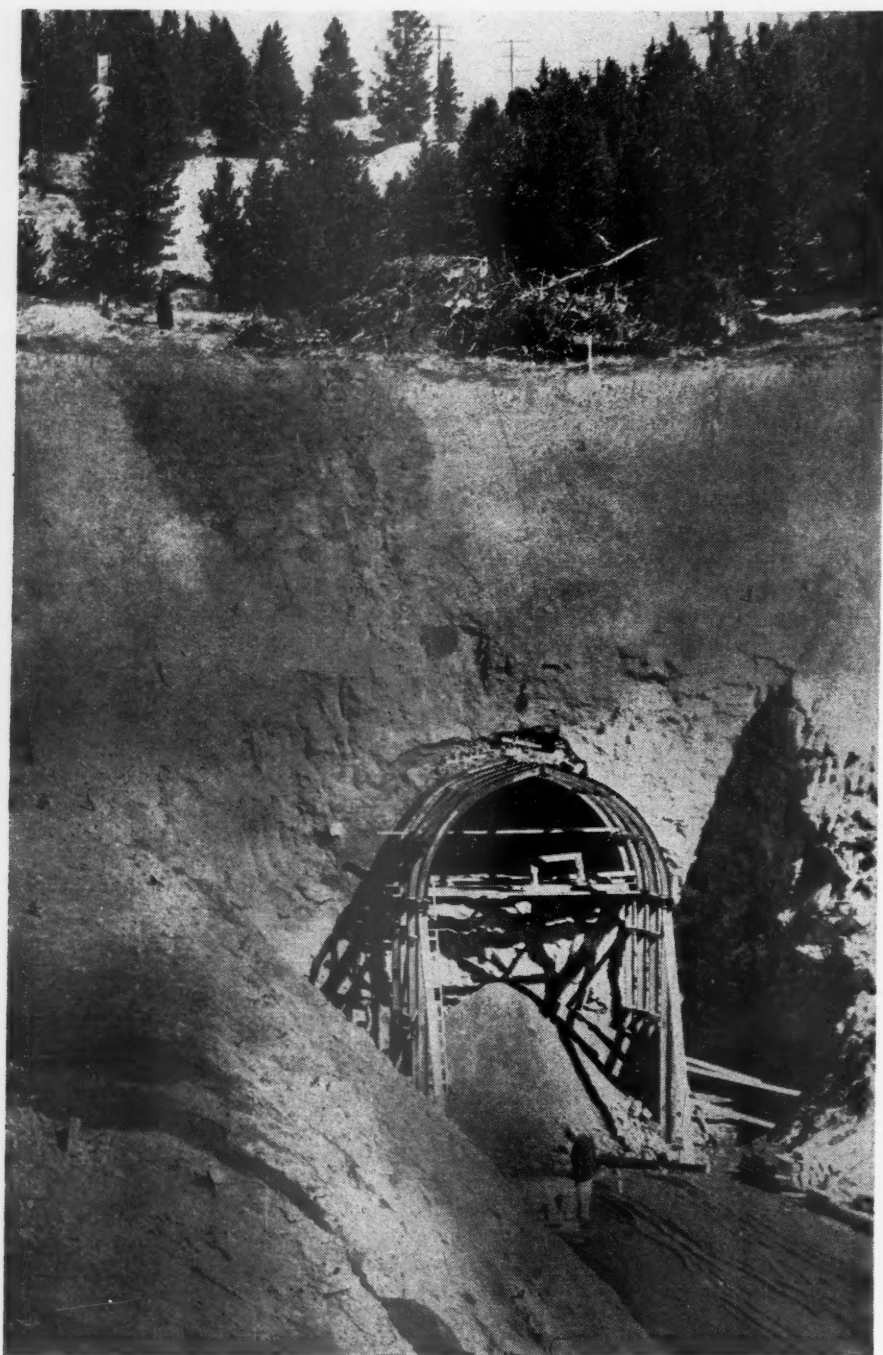
Second bore completed, 2,550 ft. long, through the historic Tennessee pass of the D. & R. G. W.

THE new Tennessee Pass tunnel of the Denver & Rio Grande Western in Colorado replaces an old 2,576-ft. bore and not only overcomes serious clearance and maintenance problems present-

PART II*

ed by the old tunnel, but materially improves operating conditions on this

Photographs, courtesy Sullivan Machinery Co.



The east portal during early stages of the tunnel construction, showing the depth of the approach cut

section of the road's Royal Gorge route between Denver and Glenwood Springs. The new tunnel, 2,550 ft. long, and like the old tunnel, single-track, is larger in section, somewhat shorter, has improved grades, and is concrete lined throughout.

The old Tennessee Pass tunnel, built in 1890, was tangent throughout, timber lined, 14 ft. wide, and had a clear height of 17 ft. 10 in. from top of rail to the underside of the arch lining. The line through the tunnel ascended from both east and west to an apex in the middle, the grade being 0.4 per cent from the east and 1 per cent from the west.

The problem presented by this old tunnel, aggravated by the heavy war traffic being handled, was not alone the seriously restricting clearances and other adverse operating conditions involved, but the inability, under abnormally heavy traffic, to make more than temporary repairs to the old lining. By late 1944 conditions were such that one of two alternatives was imperative—immediate enlarging and relining of the existing tunnel, or the construction of a new tunnel having adequate clearances and providing relief from constant heavy maintenance.

New Tunnel Deemed Necessary

Under the circumstances, the latter was the only logical solution, as the former, under any method of carrying it out, would have caused interferences with traffic, which could not be tolerated. Furthermore, estimates indicated clearly that the cost of enlarging and relining the old tunnel with concrete would be more, even under normal traffic conditions, than of building new in the clear of traffic.

At the same time, the proposed new tunnel contemplated a substantial improvement in grade over that in the old one, with materially better operating conditions. Accordingly, the new tunnel was decided upon, and when it was opened to traffic on November 3, 1945, all of the advantages contemplated over the alternate plan were realized.

The new tunnel, 26 ft. shorter than the old one, lies immediately south (time-table direction) of and nearly parallel

* Part I of this article, in which the Northern Pacific's Bozeman tunnel was described, appeared in the May 11 issue, page 952.

with it, the two being 75 ft. apart, center to center, at their east ends, and 107 ft. apart at their west ends. Like the old tunnel, the new one is tangent throughout, but unlike the old, it is lined from end to end with concrete and has massive concrete portals.

Following standards of the American Railway Engineering Association, the new bore has a lateral clearance of 16 ft. and a clear height of 23 ft. from top of rail to the crown of its semi-circular arch. The grade is uniformly 0.34 per cent throughout, descending westward from the east portal and ending in a line change at the west end, which extends for approximately 2,000 ft. to a connection with the old alignment. East of the new tunnel other line changes were necessary, involving, in addition to the main tracks, all of the tracks within Tennessee Pass yard, which were lowered to meet the grade established in the new tunnel. These latter changes resulted in a 1.0 per cent grade through the yard and to the east portal of the new tunnel, replacing a former 1.42 per cent grade in this area, and eliminated the need for helper engines on westbound freight trains out of the yard and through the tunnel, and also on some westbound passenger trains. Furthermore, they also eliminated the necessity for double-heading freight trains with wooden cabooses west to Mitchell, the first siding beyond the west portal.

Steel Timbering

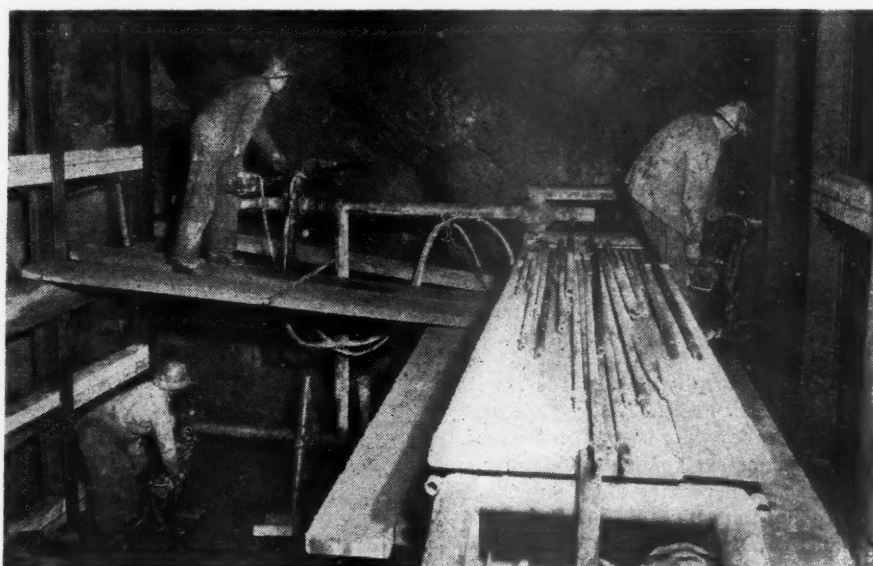
With a maximum cover of approximately 200 ft., the new tunnel, beginning at the west end, first passes through about 800 ft. of glacial moraine deposit, consisting of clay, sand, gravel and large boulders. Beyond this formation, and for the remainder of its length, it extends through schist, which varies from a granitic type to that containing an abundance of Muscovite mica. This latter material, as blasted out, broke into blocks of varying size. While this schist was very hard before exposure, it slaked rapidly into a slippery, slimy, viscous composition in the moist, quiet air inside the tunnel. The use of a water spray after each shot—to absorb the powder fumes quickly and to settle the dust, thus permitting the prompt resumption of mucking—increased the rate of this slaking and had an important bearing upon the construction procedure following excavation to final cut lines.

The unstable conditions that prevailed over the newly exposed wall and arch faces made it necessary to lag the tunnel throughout as excavation proceeded. For this lagging, 3-in. timber was used, supported on 8-in. W.F.-beam "sets" spaced not more than 4 ft. apart, and closer where any appreciable pressure against the lagging was anticipated or actually



A locomotive emerging from the east portal of the Rio Grande's new Tennessee Pass tunnel through the Rockies in Colorado

Rock drilling in the tunnel face—Note steel timbering, which was used throughout and subsequently encased in the concrete lining



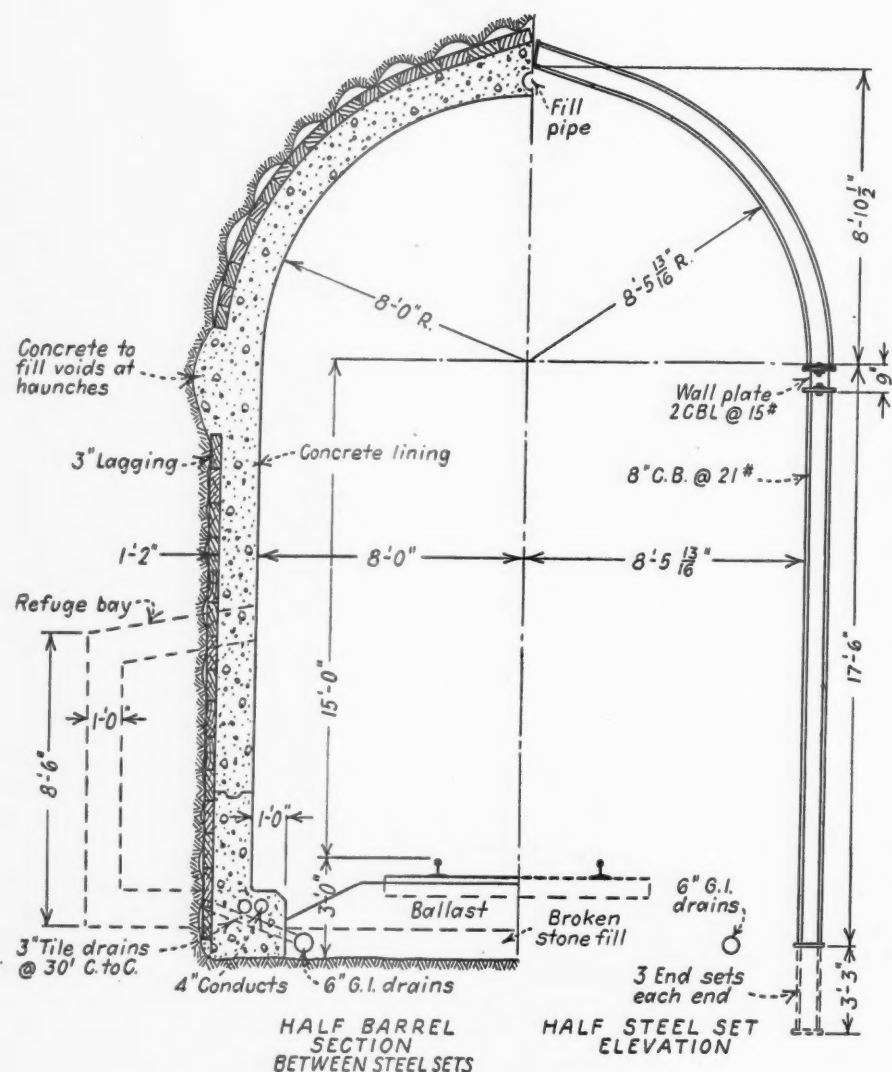
developed. These sets, each prefabricated in four pieces, consisted of two wall posts and two roof quadrants, which were given connection at the springing line and crown of the arch. These were tied together at intervals throughout their height by $\frac{3}{4}$ -in. brace rods, and were subsequently encased in the lining concrete, with a front face cover of $5\frac{3}{8}$ in.

Excavation

Excavation within the tunnel, which was carried out continuously from the west end, was, of necessity, in two stages

through the 800 ft. of glacial moraine at the west end—a full heading, followed by a full bench. However, throughout the remainder of the tunnel, in the schist formation, full-face excavation was used. Employing the latest developments in tunnel drilling, blasting and mucking equipment, the bore was advanced steadily, the excavated material being used in large part to good advantage in building the necessary embankment for the line change at the west end.

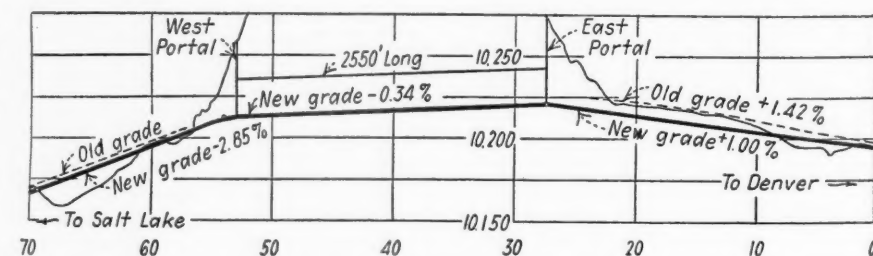
The steel timbering was kept up close behind the excavation work, the base on each side being set in a continuous concrete wall footing, 26 in. wide, with



Half barrel section of the new tunnel, and half steel set elevation, showing dimensions and other features of construction

which was integrally poured the lower 3 ft. of the wall itself. As the steel sets were placed they were lagged on the rear side and then such stone packing was placed as was necessary to fill any voids back to the natural rock face. An exception to this was directly at the arch haunches, where specifications called for omitting the lagging so that any voids at these points could be completely filled with concrete in order to transmit the arch thrust directly to the undisturbed face of the excavation.

In pouring the wall footings, two 4-in. fiber ducts were incorporated in the south footing to carry signal and communication system wiring. Furthermore, 3-in. drain tiles were placed through both footings at intervals of 30 ft. to drain to the front of the footings any water that might accumulate behind the lining. These drains are sloped downward directly into a perforated, corrugated and asphalt-dipped 6-in. floor drain extending longitudinally through the tunnel just inside each footing. These longi-



Longitudinal section through the tunnel

tudinal drains are laid in 12 in. of coarse stone back-fill forming the tunnel floor and sub-ballast for the track structure.

Concrete Lining

Lining of the tunnel was done with movable steel forms and by placing the concrete by air through openings in bulkheads at the tops of the advance ends of the form as set in pouring position. The forms used in this work include a 40-ft.

and a 20-ft. section of the original steel forms used in the construction of the Moffat tunnel of the Denver & Salt Lake in 1923-1927. With the timber lagging serving as the outside lining form, these movable steel forms acted as the inside forms and were used to pour alternate sections progressively.

All concrete employed in the lining was based on five bags of cement per cubic yard, with the aggregates carefully proportioned to obtain as near maximum density as the necessary workability for placing would permit. All batching was done by weight at a central mixing plant at the west end of the tunnel, and the concrete was moved by an electric "mule" to the points of placement in a 3-yd. batch car equipped with a pneumatic cylinder. At points of use, the concrete was forced by air through a 6-in. pipe to the tops of the forms, from which it was allowed first to bring up the side walls and then to form the arch. All pouring was continuous between construction joints.

Old Tunnel Abandoned

Following the completion of the lining, the portals, and the track structure within and at each end of the tunnel, it was put in service on November 3 last, and the old tunnel was abandoned. The use of centralized traffic control in this territory was a large factor in making it possible to abandon the old tunnel.

The planning and construction of the new tunnel were carried out under the direction of A. E. Perlman, chief engineer of the Denver & Rio Grande Western, assisted by O. K. Peck, engineer of structures, and L. O. Doane, resident en-

gineer. Actual construction was done by Winston Brothers of Minneapolis, Minn., with R. P. King as their superintendent on the job.

HANDS OFF.—"The railroads rallied to the Nation's defense and did their part. But Congress has not come to the defense of the American people about to be deprived of the necessities of life by a labor boss bent on getting his own autocratic way."—*The Philadelphia Inquirer*.

How to Be Both Prosperous and Free

America needs social and political leadership as competent as that in technology — Transportation has made the nation great, but self-discipline is needed and is now in eclipse

By M. W. CLEMENT
President, Pennsylvania

WHEN the first railroads were built in this country, it was to perform more expeditiously and in greater volume the transportation that the highways were already performing; but as the country grew and expansion of the markets spread westward, the demands of commerce on the part of eastern cities necessitated an outlet beyond the hinterland and into the plains beyond the rivers, and the railroads came to perform that transportation. As they extended their two parallel rails of iron out through the country, its development progressed. As the time came when question arose as to whether this country would hold together or not, one great influence that held it together was the little bands of iron that extended over the Appalachians out to the prairies to the far west, and tied them to the east.

The Greatest Contribution

If this great country had broken up into small states it would have become but the pawn for vast empires overseas, and it was in the tying of America together and building it as one that rail transportation made its greatest contribution to the civilization of the world. It was the same rail transportation, developed to a high state of perfection after a hundred years, that enabled this country to fulfill its destiny as the defender of the faith of its people through two great world wars. It was that transportation that enabled this country to perform the wonder of war production and develop the greatest armada of all time, and it—coordinated with other transportation—delivered that armada and its supplies to the far corners of the world.

Rail transportation in America has made possible the great development of all the other forms of transportation. These together have brought civilization to the present time, and just as important as has been America's contribution to world civilization, so has been the contribution of the railroads to America's civilization.

If there had been no progress since prehistoric times, times would still be prehistoric!

This article is adapted from an address on May 17 by Mr. Clement to a forum at Pittsburgh sponsored by the Westinghouse Educational Foundation in commemoration of the centennial of the birth of George Westinghouse.

Self-preservation and self-reproduction are the primary forces that rule man's existence. When nature "smiled" and the year was one of abundance, both animal and man lived better, but in the years that nature did not "smile" there was less of animal and less for man. As the ingenuity of man produced tools for his hands, he survived over the beasts and made them his food and the source of his clothing. As man produced more and better tools he was able to work with the forces of nature to provide himself from a bountiful earth with food, which he learned to dry and store to carry him between times of plenty.

As his number grew and progressed, it required constantly increasing skill and ingenuity that the increasing population upon the earth should have the opportunity to survive; and the time came when the intelligence of man brought him to the place where he started to harness the forces of nature, bringing to himself an ever-increasing span of life and an ever-increasing standard of living.

Man being faced with the ever-increasing demands of an ever-increasing population was confronted with the necessity of redistribution of the population, and with the necessity that the resources be redistributed also, the means of transport for the individual and for his goods became of paramount importance.

First in man's necessities was to get things moving, to get things going; and, as he got away from himself and the beast as the bearers of burden and moved forward in the use of other forces to overcome the inertia of standing still, it was necessary for him to develop another force to overcome the inertia of movement! We are here today to celebrate the birth of a man who not only contributed greatly to the art of making things move, but also contributed greatly to the art of stopping them after they were moving—the airbrake! It is that invention which made possible the great railroad industry of America.

The necessities and desires of men for better things have always produced the

genius of development and production, but when you analyze the constantly increasing standards of civilization and note how the world has moved forward as one genius after another produced something new, and one leader after another has taken the fruits of venture and turned them into usefulness for man and distributed them to the uttermost corners of the earth, one wonders why man has not likewise produced genius for the administration of his political and social affairs.

In the history of Rome, from the time Romulus and Remus took onto themselves determination and courage and vigor from the breast of the wolf, to the days of Augustus, the progress of the Roman people was ever upward and onward. As Roman power spread to the far corners of the earth, as commercial and intellectual intercourse spread between all the peoples into Asia and Africa, to Spain and to Gaul, wonderful roadways were created by the genius of man, boats that moved by sail covered the length of the great Mediterranean sea in the same number of days as boats today cross the ocean, and led to a great increase of wealth through agriculture, commerce, and manufacturing; and the ever-expanding empire was paralleled by an ever-increasing standard of living of its people.

Cities Were Not Producers

Cities of size for their day grew up everywhere as people of wealth came to them for ease and the pleasure of living, and great hordes of people followed them. Every rich family spent part of its possessions for the comforts and pleasures of the population—building theatres and temples and baths, distributing grains and oil, amusements and money. Here the youth went to school and were taught eloquence, literature, and philosophy; trained themselves for government jobs, and ever increased themselves in number as generation followed generation. As expenditures in the cities overcame the productivity of the country there was a constantly increasing demand by the people in the cities for more and more of public support. The cities were filled with beggars and idlers, sculptors and painters, dancers and actors and singers—all the

products of pleasure and luxury. But, there was nobody on the lands to cultivate them, and, with the gradual decadence of the rural population, the problem of recruits for the farm and the army became one of the great problems of the empire.

As the cities decorated themselves with handsome buildings, the problem of food became important; but the government failed completely; there was no genius in government. They tried by legislation to tie the tillers to the soil. With the ever-increasing concentration in the cities and the consequent cry for food and shelter, grain laws were passed and the grain was bought by the government and sold at half price in the cities. Public works were taken out of private hands; new projects were started—built everywhere regardless of need. There was a great increase in philanthropic institutions, and all who could afford it were asked to contribute to all kinds of assistances.

All of these plans of the state took money, took taxes, and the only people able to be taxed were those who produced, with the consequence that the lives of those who produced—the farmer and the manufacturer—were made harder, while those in the cities who lived on the government were made easier, and constantly there were more and more calls from the cities to be helped out of their predicaments. The finality in the freedom of the Roman citizens came when they traded liberty for social security and handed on the responsibility for life to the overlords.

East Versus West

That way of life disappeared in the west as man reasserted his freedom and assumed his responsibility. In the east it hung on through all time, and today this same ideology exists—take a lesser standard of living for the promise of social security. That was the panacea Bismarck offered the German people in exchange for liberty; the thing that every head of the German state has offered the German people since, and always with the same result. In much of southern and eastern Europe the people still place dependence on the state; they have been born and raised with the ideology that a little less liberty and a little more social security are best for their lot, and that is the ideology that many of them have brought to this country with them. But, their ideas do not mix with the ideas of individual initiative and individual responsibility and progress.

The ideology of a country without great natural resources is transplanted to a country with great resources, and the conflict of the ideologies of two different peoples is bringing the same conflict into the political philosophies of the

people of America and is expressing itself in the discord in which the people find themselves today.

In our civilization there has been a genius to meet every necessity growing out of the problems of production and science, the arts and medicine—activities in which individuality has the chance to display itself. In our several hundred years we have materially progressed much further than the Romans, but have we gone any further than they did in regulating our social and political affairs?

What the Founders Expected

The men who created this Republic of ours were all well acquainted with Rome; their opportunities for reading were generally in things profound; they knew their history and their philosophy; they had watched civilization emerge from the Dark Ages under the genius of men who were autocrats; they had seen these men pass on their authority to their children; and they knew that ruling by heredity had failed. And so they established in this country of ours a Republic that was to have an elected governing group—men who understood the weaknesses and frailties of men as well as the strength of men, men who would establish checks and balances in this government of ours against all the weaknesses that had shown themselves in history.

But, it was the expectation of these men that the people of this country would discipline themselves, and under self-discipline remain free; that the government should have no hand in discipline, but that as free men the people could progress just as far as genius would take them; and that, aided by the wisdom of their leaders, they would lay down the rules by which the game was to be played. It was certainly their hope that men of genius would arise in government, in education, in agriculture, in the law, and in medicine—to lead and advise and direct the people that they, imposing discipline upon themselves, could enjoy the fruits of that genius.

We have gone far from that! People are concentrating in the cities just as they did in the days of Rome, and if you have watched the tendencies of the past few years you have seen somewhat the same thing going on in this country of ours as went on in the Roman Empire. Can we get the people to appreciate the fact that without self-discipline the government must eventually impose discipline? That is the important question today, because when the government imposes discipline it does it with the army, and when the army starts shooting we have all lost our liberty.

Under the original plans for this wonderful country of ours, the country would

produce men of breadth and genius and vision who, elected by the people, would so guide the people and lay down the rules of the game that opportunity would prevail for all; and, by the development of a self-disciplined system within the margin of the Constitution, safeguard liberty from the dangers of anarchy.

Under that plan and under that scheme of life, we in our time have seen come many of the great developments of modern times. In communication, from a mere something to almost instant contact between any voice and any ear in this country. And in the electric field nearly all has been accomplished in our own time. A country that was lighted by candle, by oil, and by gas here and there, now becomes aglow by the push of a button. Trains, cars, buses, automobiles, planes—all move swiftly on their way nearly all electrically controlled or inspired. Radio, one of the latest of these developments, is gradually bringing us all intimately in contact with the thought of others.

Discipline's Accomplishments

Use of the radio by pressure groups is transforming this country from one of government by selective representatives of the people into a democracy influenced by such groups, to the stimulation of antagonisms and social fear; and the efforts of the men who create things, the efforts of the men who make things have surged far ahead of the self-discipline of those who use them—and that is a problem that is facing us today.

The success of the great American institutions has been based on the discipline within their organizations. All the great manufacturing organizations, all the great transportation organizations, have had that discipline. The rail transportation of America is performed by a million and a half men scattered throughout every state in the union. If they are on the tracks they are small groups under a foreman; if they are in the enginehouse they are in small groups under a foreman; if they are in the ticket offices or in the freight houses they are in small groups under an agent; if they are out on the road in trains, there is the engineer with his fireman and the conductor with his trainmen. Each of these smaller groups is supervised in a larger group, which is combined with the complete organization, and there is just one thing that makes them work—that is discipline; every man playing the game according to the rules and playing his part under the discipline that he imposes upon himself. The day that there ceases to be discipline in the organization of transportation is the day that railroads fall apart.

America's war transportation service would not have been performed with-

out that discipline and the assumption of individual responsibility by the men who were performing it; men who fought through storm and blizzard and the dark of night with train after train, hour after hour, with materials for war that had to be delivered. That was discipline—self-discipline!

What is true of American rail transportation is true of other industry, and the great necessity upon which this country will survive is production, and production will come only when there is discipline.

The greatest contribution that any industry can make today is to bring back to the people the pride of self-discipline. The greatest thing that our country needs today is leadership that will restore the faith of the people in themselves and bring back to them the discipline that they inherited from the founding of this country and which recently has been forgotten.

When one walks along the picket line today and sees girls in mink coats and nylons, laughing and chatting as they parade, one knows that ideals have been shattered. When one watches the picket line in which a father leads his son, both well dressed, and carrying a placard—"baby needs shoes"—one wonders where pride has gone. When one sees the mob, in defiance of the law, mass-picketing with clubs in their hands, one knows only too well that love of country has gone. When everybody everywhere is saying "give me, give me, give me" and but few are thinking of making a contribution, then one knows that the sense of individual responsibility has gone.

The Mob Responds to Leaders

A mob adrift is a dangerous thing, but a mob is only adrift because of the type of leadership to which it is responsive—whether it be political or social or otherwise; and the return of the people of the United States to the assumption of responsibility depends much upon our social leadership. Nationally we need leadership with the patriotism of a Washington, with the understanding character of a Lincoln, and with the courage of a Cleveland; leadership that would persuade the people to the return of self-discipline—in the home, in their work, in their play, and in their national life. There is need for men with the genius for overcoming the inertia of the people, even as George Westinghouse was a genius for overcoming the inertia of nature; the genius who made the rail transportation industry the success that it is; but only because it was coupled with the discipline that existed in the industry.

Business likewise needs genius in leadership, and, in determining upon that leadership, should take note of the great

contribution made by transportation to civilization; the contribution of discipline. Not alone do I speak of the railroads. All transportation has been a well disciplined industry, whether by water or air or highway or railway; and no greater contribution to civilization can be made today and in the future than to hold that discipline and extend it out through all the peoples of the world.

Wage Compromise Proposed by Truman

(Continued from page 1055)

1943, and they remained under government control until January 18, 1944. There were differences, however, for that time the job of operating the roads was given to the Secretary of War; and Messrs. Whitney and Johnston, having canceled their strike calls and accepted Mr. Roosevelt as arbitrator while other union leaders refused to do so, basked in Administration favor as labor advisers to the War Department. And Mr. Truman, then senator from Missouri, was sponsor of a congressional resolution to meet the demands of the employees by legislating approval of the wage increase which they had negotiated with management but which had been disapproved by the stabilization authorities.

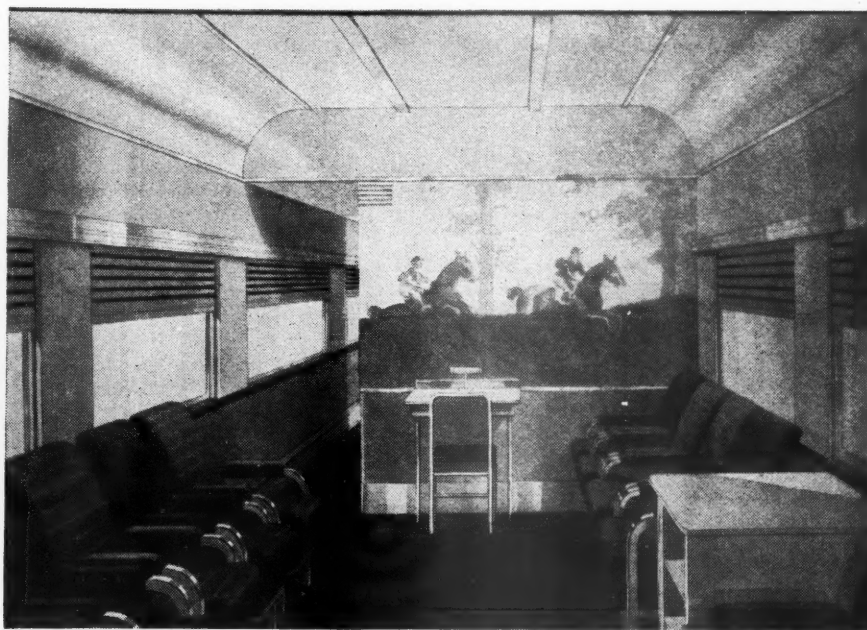
Because the 5-day postponement of the strike was announced only a short time before it was scheduled to begin on May 18, there was considerable confusion at some railway terminals, particularly in the Eastern Time zone, as a result of more or less complete walk-outs of mem-

bers of the two brotherhoods. In some instances they returned to work promptly when informed of the postponement, but in others they either insisted on waiting for official word direct from their union headquarters or made themselves inaccessible to messengers seeking them. In territories where trains are operated on Central, Mountain or Pacific time, notice of the postponement was generally disseminated before the strike was scheduled to begin, and there were only occasional tie-ups.

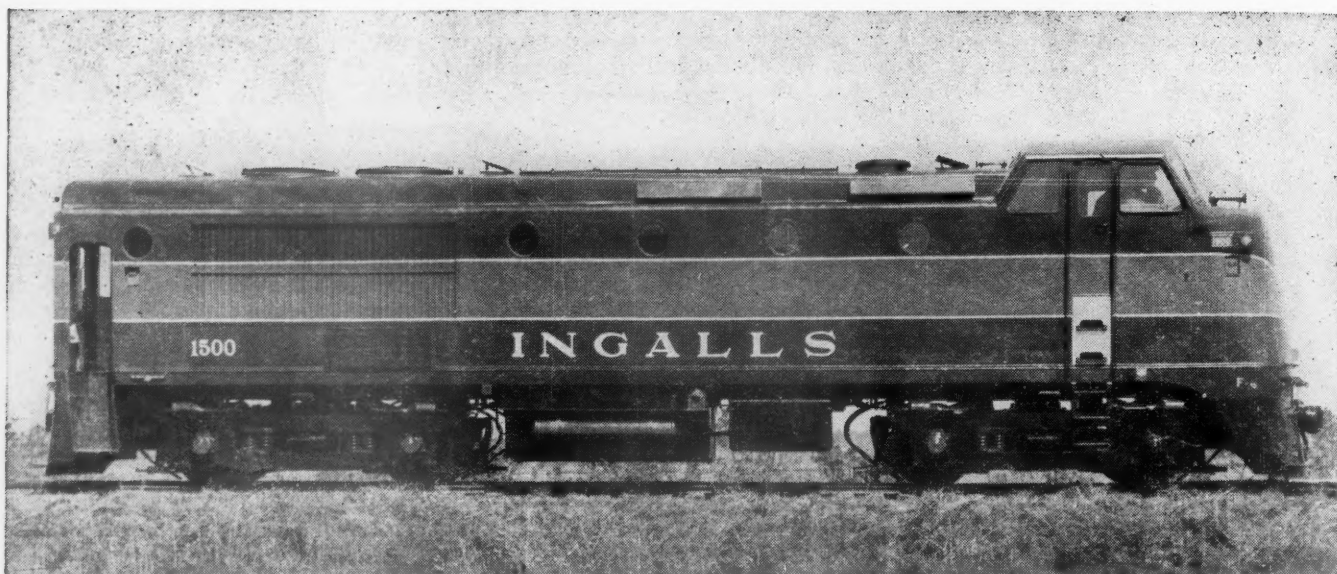
Railroads in the New York area perhaps were more seriously affected by the sporadic walk-outs on May 18 than were others, but operations were more or less seriously delayed at many points in the East. Some trains were moved on or close to schedule either by brotherhood members who remained on the job or with foremen or other qualified supervisory officers handling the engines and with other employees replacing missing trainmen. Many other passenger trains, however, including some of the New York-Chicago and other through trains, departed from a few minutes to several hours behind schedule, and commutation service was seriously disrupted.

Operation of the Hudson & Manhattan was suspended for more than 24 hours, resulting in further interference with normal patronage of suburban trains on connecting lines. Freight services in many parts of the country already had been curtailed, partly as a result of embargoes applied in anticipation of a strike, and operations were not restored to normal in some cases for many hours after the postponement was announced.

* * *



View of lounge section of tavern-lounge cars which will be a part of the Louisville & Nashville's new streamlined trains. Individual chairs will be upholstered in rust-colored or chartreuse mohair



First Ingalls Diesel-Electric Locomotive

Ingalls Shipbuilding Corporation builds all-purpose 1,500-hp. locomotive powered with eight-cylinder supercharged Superior engine in combination with Westinghouse electrical equipment

THE Ingalls Shipbuilding Corporation, Pascagoula, Miss., has built its first Diesel-electric locomotive. Designed by the Ingalls locomotive division on the basis of studies made on several railroads of the service requirements for Diesel-electric locomotives, this first unit is a 1,500-hp. "all-purpose" model. It is intended for use in heavy switching or transfer service, or for freight and passenger road service, either singly or in multiples forming a locomotive of two, three or four units.

The locomotive has a turret-type cab which permits 360-deg. vision. It may be operated in either direction, a feature making it adaptable for use in switching service and for road and suburban service where it is impracticable to turn the locomotive around. It is equipped with a pilot at both ends and has jumper and air connections for multiple operation.

Underframe and Trucks

The body and underframe are of all-welded steel construction. The center sill is constructed of 14-in. H-beams with a heavy plate welded across the top and bottom, making it in effect a box girder. The trucks are of the swingbolster type, each having eight triple-coil springs and two quadruple full-elliptic springs. Both trucks have two

axles each with a traction motor geared to each axle. The axles have 7-in. by 14-in. journals mounted in Timken roll-

Ingalls 1,500-Hp. Diesel-Electric Locomotive Specifications

Gauge, ft.-in.	4-8½
Diesel engine:	
One, 8-cylinders in line, supercharged, hp.	1,650
Driving motors:	
Number	Four
Maximum speed (worn wheels), m.p.h.	65
Gear ratio	15:63
Type	370-F
Journal bearings, in.	7 x 14
Wheels:	
Driving, pairs	Four
Idling, pairs	None
Diameter, in.	42
Wheelbase, ft.-in.:	
Truck	9-6
Total locomotive	42-6
Total weight, lb.:	
In working order	240,000
Light	225,000
On drivers	240,000
Maximum overall dimensions, ft.-in.:	
Width	10-6½
Height	15-0
Length (inside knuckles)	59-1
Tractive force, lb.:	
Starting, at 30 per cent adhesion ..	72,000
Continuous rating, at 10.5 m.p.h. ..	42,800
Minimum radius curvature, locomotive alone, ft.	150
Supplies (total capacity), gal.:	
Lubricating oil	157
Fuel oil	1,000
Engine cooling water	480
Heating boiler water	1,200*
Sand, cu. ft.	27

* If and when a heating boiler is installed.

er bearings. The 42-in. wheels, as well as the axles, were supplied by the Standard Steel Works. The truck frames

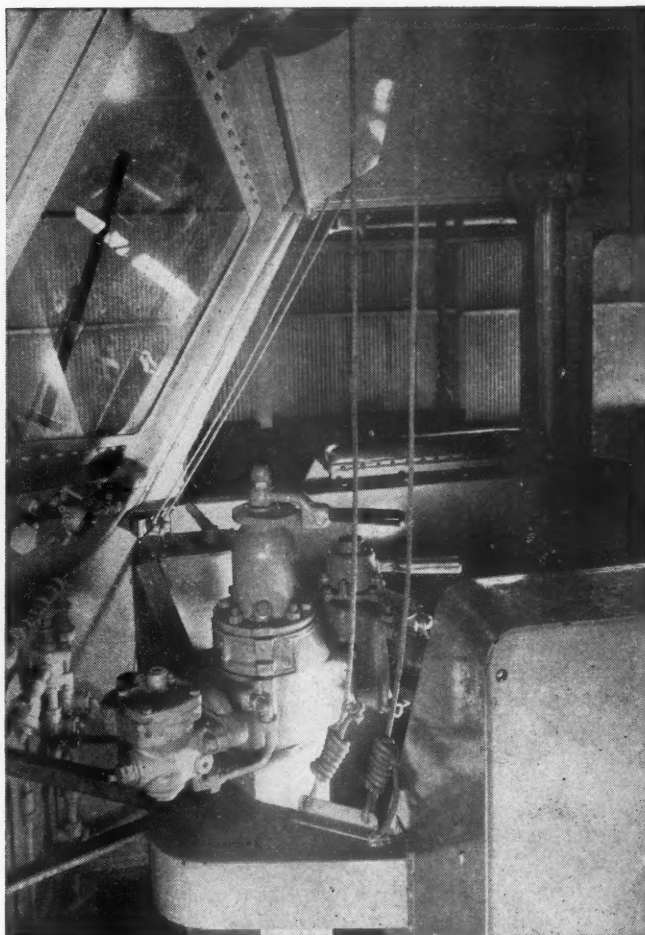
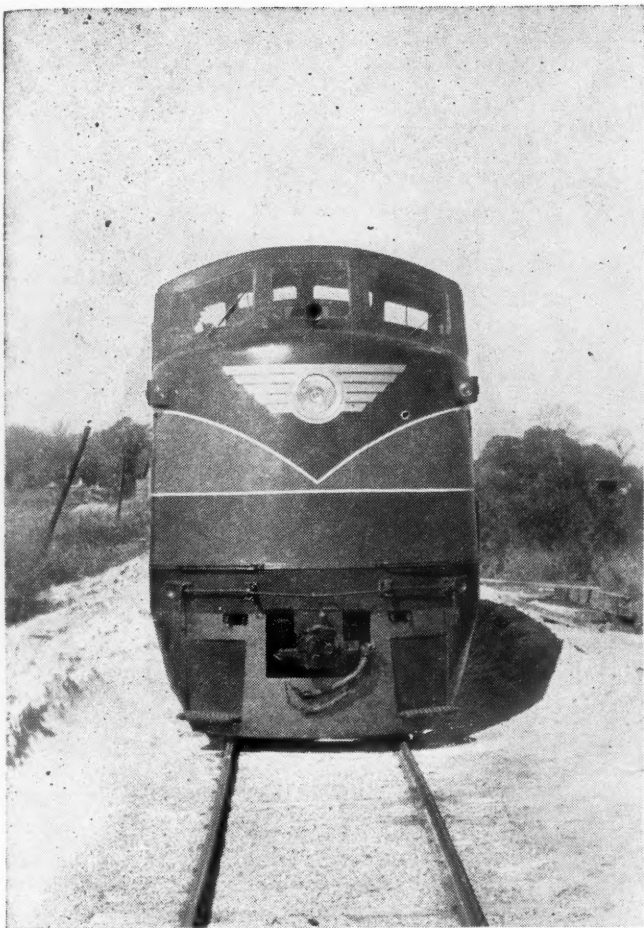
were furnished by the General Steel Castings Corporation.

The Diesel Engine

The locomotive is equipped with a 1,650-hp. Diesel engine made by the Superior Engine Division, National Supply Company. It is a four-cycle turbocharged unit operating at 660 r. p. m. The engine delivers 1,650 hp., but after the power for driving auxiliary equipment is deducted, 1,500 net horsepower is available at the generator for traction purposes.

The Diesel engine has eight cylinders with a bore of 12½ in. and a stroke of 15 in. The engine bed, block and cylinder heads are steel castings and the engine bed is extended to provide a rigid support for the generator. The engine uses a dry cylinder block with individually-cooled cast-iron liners. The dual intake and exhaust valves are of heat-resisting steel with seat inserts and are interchangeable. The engine has cast-iron oil-cooled pistons and a forged one-piece crankshaft. A water-cooled manifold of the Helixhaust type is used.

Individual fuel-injection pumps are actuated by a chain drive from the engine crankshaft, while the fuel supply pump is driven by an electric motor. Water and lubricating-oil pumps are

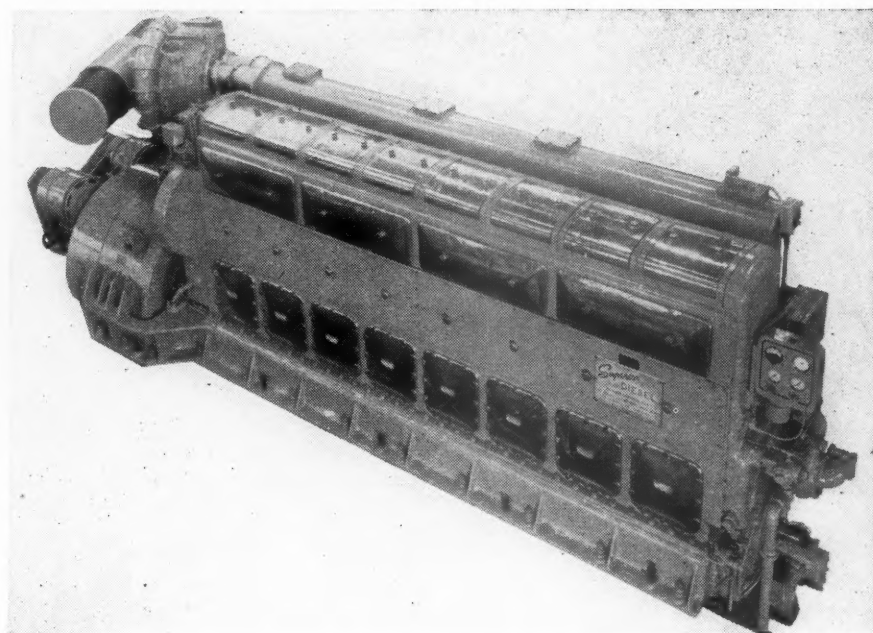


Left—Front view of Ingalls locomotive. Right—Engineman's cab controls

built into the engine. A Woodward hydraulic variable-speed governor is used in association with Westinghouse auto-load control. The usual alarms protect the lubricating-oil and water-cooling systems, and, in addition, the Bearing Watchdog system, manufactured by the Paxton Diesel Engineering Company, is installed. This system will shut off the engine in the event of excess wear or failure of the bearings. An Elliott-Buchi turbo-charger is attached to the engine, taking air through a filter. At the end of the engine opposite the generators is a flexible coupling for driving a Westinghouse 3 CD air compressor.

Cooling System

Straight fin-tube radiators are used on each side of the locomotive. Each radiator is built in two entirely separate sections so that in the event of the failure of one section of the radiator, the locomotive will still have three-quarters of its cooling capacity left. The radiators are proportioned so that the locomotive could continue to operate at full power in the event of such a failure. The cooling air passes through the radiators into an air duct and through two cooling fans located in the roof. These fans are driven by variable-speed electric motors



1,650-hp. supercharged Superior engine

with Minneapolis-Honeywell automatic shutter control, making it possible to obtain close regulation of water temperatures. After the water is cooled in the radiator system, it passes through an oil

cooler of the shell and tube type. The water, after serving to cool the lubricating oil, returns to the engine. For cleaning the lubricating oil, a Purolator duplex oil strainer is used, as well as a

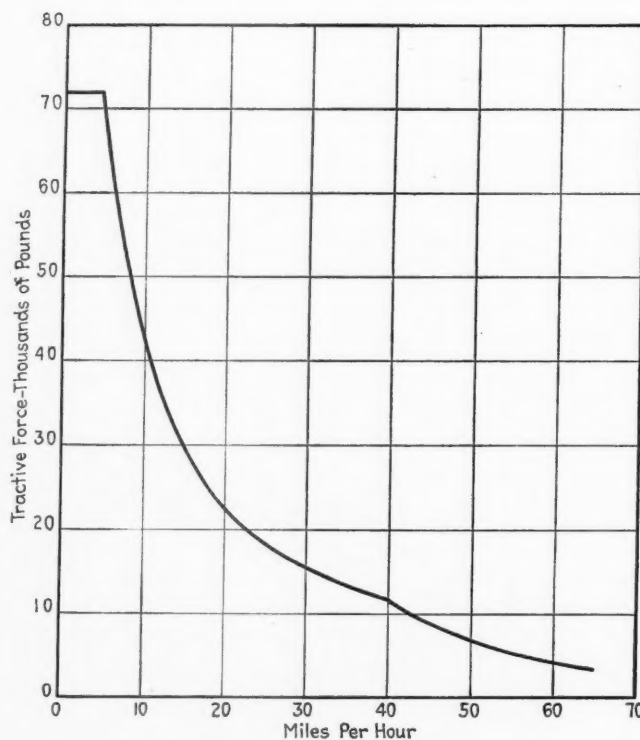
four-element Nugent waste packed filter.

Space adjacent to the radiators is available for a steam generator and a roof hatch permits its installation or removal. The locomotive will be equipped with a 1,200-gal. water tank if the steam generator is required. At the rear of the locomotive is a vestibule, the purpose of which is to provide a sheltered location for switching crews while operating in transfer service and to eliminate the necessity of their riding in the cab.

Electrical Equipment

All electrical equipment was manufactured by the Westinghouse Electric Corporation. There are four generators—the main generator, the fan generator, exciter, and auxiliary generator. The main generator is attached directly to the engine crankshaft, and is mounted on an extension of the engine bed plate. It develops 750 volts maximum, with a continuous rating of 1,760 amperes at 660 r. p. m. The fan generator is attached to an extension of the main generator shaft, and the exciter and auxiliary generators are driven by vee-belts from a sheave on the end of the fan generator.

The traction motors are Westinghouse Type 370-F with a gear ratio of 15 to



Speed-tractive force curve

63. These motors are cooled by motor-driven blowers, discharging air through flexible connections to the top of the

traction motors. The electrically driven blowers make it possible to maintain traction motor cooling even when the Diesel engine is idling. The blowers take cool air from the outside through a screen-and-baffle filter, producing clean, dry air for the traction motors.

The exciter is of the differential, series-field type, and is both separately and self-excited to produce the desired engine-loading characteristics. It is supplemented by the Westinghouse auto-load system of load control which reduces the generator power demand on the engine if it is unable to develop its normal output for any reason, and thus prevents overloading.

The traction motors are connected permanently in series-parallel, thus eliminating the apparatus required for transitioning from series to series-parallel. In addition to the saving in switches and relays, the operation is improved by the steady application of power during the acceleration of the train. For higher speeds there are two stages of field shunting.

The use of conduit on the locomotive has been eliminated. All cable is of the lead-and-bronze armored type with varnished cambric insulation, a type used in marine installation for many years because of its resistance to heat, cold, moisture, oil and mechanical injury. The connections to traction-motor leads are in watertight junction boxes instead of the usual connectors and tubes or tape. Junction boxes and terminal strips are also used for electrical connections throughout the locomotive.

Partial List of Material and Equipment on the Ingalls Locomotive

Axles	Standard Steel Works Division of Baldwin Locomotive Works, Philadelphia, Pa.	Headlight	The Pyle-National Co., Chicago
Batteries, storage ..	Electric Storage Battery Co., Philadelphia, Pa.	Horns, air	The Leslie Corp., Lyndhurst, N. J.
Bearings, roller	Timken Roller Bearing Co., Canton, Ohio	Heaters, electric cab ..	Edwin L. Wiegand Co., Pittsburgh, Pa.
Bell and ringer	Railway Service & Supply Co., Indianapolis, Ind.	Motor, traction-motor blower	Westinghouse Electric Corp., East Pittsburgh, Pa.
Blowers, traction-motor ..	Buffalo Forge Co., Buffalo, N. Y.	Pads, engine mounting ..	Fabreeka Products Co., Inc., Boston, Mass.
Brake, hand	Ajax-Consolidated Co., Chicago	Paint	Railway Paint Division of Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Brakes, air	New York Air Brake Co., New York	Radiators and fans ..	American Blower Corp., Detroit, Mich.
Castings, truck	General Steel Castings Corp., Eddystone, Pa.	Rigging, brake	American Steel Foundries, Chicago
Compressors, air	Westinghouse Air Brake Co., Wilmerding, Pa.	Sanders	Ajax-Consolidated Co., Chicago
Cooler, oil	Ross Heater & Manufacturing Co., Buffalo, N. Y.	Seats, cab	Heywood-Wakefield Co., Gardner, Mass.
Couplers	National Malleable & Steel Castings Co., Cleveland, Ohio	Shoes, brake	American Brake Shoe Co., New York
Coupling, flexible	Falk Corp., Milwaukee, Wis.	Shutters and shutter control	Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Diesel engine	Superior Engine Division of National Supply Co., Springfield, Ohio	Speedometer	Westinghouse Electric Corp., East Pittsburgh, Pa.
Doors	Morton Manufacturing Co., Chicago	Springs	American Steel Foundries, Chicago
Draft gear	National Malleable & Steel Castings Co., Cleveland, Ohio	Strainer, oil	Puralator Products, Inc., Newark, N. J.
Electrical equipment ..	Westinghouse Electric Corp., East Pittsburgh, Pa.	System, crank-shaft bearing protection ..	Paxton Diesel Engineering Co., Omaha, Neb.
Extinguishers, fire ..	C-O-Two Fire Equipment Co., Newark, N. J.	Thermometer	James P. Marsh Corp., Chicago
Fans, cab	Westinghouse Electric Corp., East Pittsburgh, Pa.	Treads, safety walk ..	J. M. Edwards Co., New Orleans, La.
Filter, oil	William W. Nugent & Co., Chicago	Treads, step	Morton Manufacturing Co., Chicago
Footboards	Morton Manufacturing Co., Chicago	Valve, emergency fuel cut-off	Manning, Maxwell & Moore, Inc., Muskegon, Mich.
Gauges	James P. Marsh Corp., Chicago	Wheels	Standard Steel Works Division of Baldwin Locomotive Works, Philadelphia, Pa.
Hangers, swing	West St. Louis Machine & Tool Co., St. Louis, Mo.	Windows	Hunter Sash Co., Inc., Flushing, N. Y.
		Wipers, windshield ..	C. A. Sprague Devices Co., Michigan City, Ind.

L. W. Baldwin Died on May 14

The passing of an outstanding American railway chief executive marks the close of a varied, colorful career as an engineer, operating officer and president

LEWIS WARRINGTON BALDWIN, head of the Missouri Pacific Lines, died at his home in St. Louis, Mo., on May 14, following an illness of several weeks. He had been head of the Missouri Pacific Lines for 23 years and his tenure of office on that railway was marked by an aggressive program of improvements and expansion that was highly successful. In addition to serving as head of the Missouri Pacific, Mr. Baldwin was a leading figure in St. Louis business, social and civil life. Those who knew him best attributed his marked success as an executive to his unusual qualities of leadership and to his often-expressed belief that railroads are public servants and hence must be constantly improved in order to render maximum public service. During the years he headed the Missouri Pacific, capital expenditures for improvements and betterments amounted to more than \$300 million and, as an engineer by training, he personally saw to it that the system was safely and efficiently maintained.

The senior executive assistant of the Missouri Pacific Lines, P. J. Neff, has been named chief executive officer to succeed Mr. Baldwin, with headquarters at St. Louis. Mr. Neff had maintained headquarters at Houston, Tex., in order to give close supervision to the Gulf Coast Lines and International-Great Northern, units in the M. P. system.

An American Success Story

Mr. Baldwin was born at Waterbury, Md., on February 26, 1875. His father was a Maryland planter and his mother was the daughter of a distinguished Maryland clergyman, Rev. Henry Furlong of Baltimore. He was reared on the family plantation and attended country schools at Waterbury. A brilliant student, he graduated from St. Johns college, Annapolis, Md., in 1893 at the age of 18, with the degree of Bachelor of Science. He then entered Lehigh university, from which he graduated with the degree of Civil Engineer in 1896. While at St. Johns and Lehigh, the young man distinguished himself as a leader in student activities and was an outstanding player on the Lehigh football team.



Lewis Warrington Baldwin

Mr. Baldwin's interest in railways began at an early age and for several years, while attending school, he worked as a rodman on various eastern railways during summer vacations. Following his graduation in 1896, he entered the service of the Illinois Central as a chainman and served until 1898 in that capacity and later as a rodman and assistant engineer. In June, 1898, he was made assistant engineer on maintenance work and later in the same year became assistant engineer on location and construction.

He was promoted to supervisor of track in 1900 and became a roadmaster in 1904. Two years later he was appointed trainmaster and served in that capacity for two years, being promoted to superintendent in 1906. In 1910 Mr. Baldwin was promoted to engineer maintenance of way, but three years later, in order to gain wider operating experience, he was transferred, at his own request, to the position of superintendent at Louisville, Ky. In 1915 he was promoted to general superintendent, Southern lines, with headquarters at New Orleans, La. In November of that year he was made general manager of the Central of Georgia (controlled by the

Illinois Central), with headquarters at Savannah, Ga., and shortly thereafter was elected vice-president and general manager.

In January, 1918, with the formation of the United States Railroad Administration, he became regional director of the Southern region, with headquarters at Atlanta, Ga., and in June, 1918, was transferred to the Allegheny region, with headquarters in Philadelphia, Pa., later being appointed regional director at Philadelphia. In 1920 he returned to the Illinois Central as vice-president in charge of operations, in which capacity he remained until elected head of the Missouri Pacific in 1923.

His Career with the M. P.

When Mr. Baldwin took over the direction of the Missouri Pacific he faced an extremely difficult task, for the railway admittedly was a badly run-down property. Much of the equipment was old and in poor repair. There was little heavy steel, the roadway was rough and, most serious of all, the morale of the organization was at an all-time low. All of this had contributed to a still greater difficulty—the steady decline of traffic.

Mr. Baldwin immediately launched an improvement program and sought constantly for the betterment of employee relations. One of his first moves was to create active industrial and agricultural development departments and to encourage employee organizations to take a keener personal interest in rendering improved service and in increasing traffic. This latter activity later crystallized in the formation of employee "Booster" clubs all over the railway.

In pursuance of improved employee relations, Mr. Baldwin spent most of his time traveling over the 10,000-mile system and keeping in close touch with all operating details and with the railroad's personnel. He knew officers, supervisors and hundreds of veteran employees by their first names and enjoyed the respect and confidence of the company's 40,000 employees. He also knew the railway's principal patrons in all parts of the country. That he was a tireless worker can be attested by those who have accompanied him on inspection

tion trips and know that 18 and 20-hour days were the rule rather than the exception.

Shortly after going with the M. P., Mr. Baldwin began negotiations for extending that railway into rich and rapidly developing Southwestern territory through the acquisition of the Gulf Coast Lines and the International Great Northern. Final negotiations for the ownership of these lines were completed in December, 1924, and they were merged with the Missouri Pacific railroad to form the present Missouri Pacific Lines. The resulting coordination of service and facilities has been of tremendous benefit not only to the railroads involved, but to the territory they serve as well.

A Tireless Worker

In 1927 the unprecedented flood on the Mississippi river and its tributaries was a stunning blow to the Missouri Pacific Lines since, because of their geographical location, they were harder hit than any others. Mr. Baldwin spent many weeks in the critical territory and directed the railway forces in fighting the flood waters and in reopening promptly many of the seriously damaged lines. He also directed the saving of levees, rescuing marooned inhabitants and providing housing for them, and, as the water receded, initiated activities in staving off famine and disease and the planting of new crops.

These latter activities were characteristic of the man who gave of himself generously in public service when emergencies occurred. In 1930, for example, when a devastating drought threatened disaster to farmers and stock raisers throughout the West and Middle West, he served as chairman of the Missouri Drought Relief Committee and directed the extensive relief measures of that body.

When the Missouri Pacific was forced into bankruptcy in 1933, Mr. Baldwin was named co-trustee with Guy A. Thompson, but later resigned that position to remain as the railroad's chief executive officer and president of the corporation and its numerous subsidiaries. In January, 1944, when the railroads were under U. S. Army control for a brief period, Mr. Baldwin was commissioned a colonel and placed in charge of all railway operations in the Southwestern region.

Since the organization of the Association of American Railroads, Mr. Baldwin had served on its executive committee and as a member of its board of directors. He was a past president of the American Railway Engineering Association and a member of the American Society of Civil Engineers.

The cultural side of life did not find Mr. Baldwin lacking. In 1927 the St.

Louis Symphony Orchestra found itself in financial difficulties. Mr. Baldwin assumed its presidency and promptly put it on a sound basis again. He also contributed greatly to the Boy Scout movement. He was a member of the executive board of the National Council and chairman of Region 8, the largest region in the country. He was active in church circles and had been a vestryman and

senior warden of St. Peter's Episcopal Church of St. Louis for many years.

Mr. Baldwin was a past president of the St. Louis chapter, Sons of the American Revolution, and a member of Missouri Pacific Post No. 141 of the American Legion, the Bankers Club of New York, the Chicago Club of Chicago and the Noonday, Racquet, St. Louis Country and Log Cabin clubs of St. Louis.

February Purchases Dip, But Are Well Above Pre-War Levels

ALTHOUGH railway purchases of fuel, materials and supplies (excluding equipment) by Class I roads during February dipped approximately seven per cent below purchases for the same month of 1945, and aggregated \$109,999,000 compared with \$118,015,000 during February, 1945, they were fully 37 per cent greater than for the same month of 1941, according to estimates prepared by *Railway Age* and based upon individual reports received from 72 carriers.

Excluding fuel, and considering only the purchases of materials and supplies from manufacturers, railway purchases of these items during February aggregated \$60,209,000 or 19 per cent less than the February, 1945, purchases in the same category; they were 23 per cent less than the purchases during the same month of 1944 but they exceed the February, 1943, total by five per cent, were 16 per cent less than 1942, but topped February, 1941, purchases by a full 15 per cent.

Although purchases of manufactured materials and supplies for the first two months of 1946 dipped eight per cent below those of the same period last year, they amounted to \$140,555,000 and exceeded those for the same period of the pre-war year 1941 by 34 per cent. Moreover, they exceeded those for the 1943 period by 22 per cent but sagged 5 per cent below those for the same months of 1942 and 10 per cent below 1944.

Rail Deliveries Lower

Reflecting the results of steel and coal strikes and consequently the sharp reduction in steel production, rail deliveries for February were lower than for any month during the last seven years and dropped to \$1,021,000 or 83 per cent less than during February, 1945, when they totaled \$5,962,000; 84 per cent under the \$6,264,000 expended for the same purpose during the same month of 1944; 77 per cent less than February, 1943's

\$4,340,000; 73 per cent less than the \$3,813,000 spent for rail during the same month of 1942 and 81 per cent less than the \$5,289,000 spent for the same purpose during February, 1941.

Rail deliveries during the first two months trailed badly and with the tremendous loss of steel production tonnage caused by the coal strike, seasonal deliveries probably will be set well back and well below those of previous years. Expenditures for rails during January and February, 1946, were 50 per cent less than for the same period last year, 54 per cent less than in 1944, fully 36 per cent less than in 1943, about 15 per cent less than for 1942 and 33 per cent less than during the first two months of 1941.

Expenditures for crossties amounted to \$5,388,000 during the month of February and reflected bad weather and operating difficulties, as well as competitive features of the lumber market. They sagged almost 4 per cent below January figures and were about 1 per cent less than during February, 1945; they were 19 per cent less than during the same month of 1944 but exceeded those of 1943 by 19 per cent, those of 1942 by 12 per cent and were fully 55 per cent greater than during February, 1941.

Crossties purchased during the first two months reflect practically the same trend, for they totaled \$11,022,000 for 1946, and approximated those for the same period of 1945. They were about 19 per cent less than for the same period of 1944, but 29 per cent, 14 per cent and 60 per cent greater, respectively, than for the first two months of 1943, 1942 and 1941.

Miscellaneous Materials Off

A substantial drop was also registered in the monthly purchases of the thousands of items of miscellaneous materials and supplies required for the maintenance of equipment, structures and track,

which for the most part comprise storehouse stock, when the February total slumped to \$53,800,000. This was 23 per cent less than the \$69,852,000 expended for these supplies during the first month of this year; 15 per cent less than the February, 1945, expenditure, which totaled \$63,245,000; 18 per cent less than the \$65,693,000 spent for the same purpose during the same month of 1944; however, it exceeded the February, 1943, total by 11 per cent; was 15 per cent less than for the same month of 1942; but was 24 per cent greater than the \$43,400,000 expended for the same class of materials during the month of February, 1941.

Fuel purchases continued at a high rate and amounted to \$49,789,000 during February, 1946. Despite the fact that this was four per cent less than the \$51,968,000 spent for the same purpose during January, it was 15 per cent greater than the \$43,349,000 expended

for fuel during February, 1945, one per cent less than in the second month of 1944; it exceeded the \$41,542,000 fuel purchases for the same month of 1943 by 20 per cent; was 56 per cent greater than the February, 1942, purchases; and surpassed the \$27,894,000 expended for the same purpose during the corresponding month of 1941 by 78 per cent.

Fuel purchases for the first two months of 1946 amounted to \$101,757,000, an increase of 12 per cent compared with the \$91,175,000 expended for fuel during the same two months of 1945, and one per cent greater than similar expenditures for 1944; however, they exceeded by 25 per cent the \$81,425,000 spent for the same purpose during the corresponding period of 1943; were 57 per cent greater than similar expenditures during the first two months of 1942 and 85 per cent greater than the \$55,148,000 spent for fuel during the same period of 1941.

* * *

NEW BOOK . . .

A Chronological History of Electrical Development. 154 pages. 9¼ in. by 6¼ in. Bound in Fabrikoid. Published by the National Electrical Manufacturers Association, New York, 17, New York. Price \$2.00.

This is a story by dates of important happenings in the electrical industry. The manner of presentation is indicated by the following excerpts from the book:

"400 B. C. Democritus (460-357 B. C.), Greek philosopher, propounds the theory of atomic structure of matter, saying atoms are in perpetual motion and are indivisible."

"1819 James Watt (1736-1819), Scottish engineer and inventor, famous for his improvements in steam engine design, dies. In his honor the name 'watt' is given to the unit of electric power."

"1836 Samuel Finley Breese Morse (1791-1872) makes his first telegraph instrument from an old picture frame, exhibits it in 1837 at the University of the City of New York."

"1839 The first electrotypes are produced from a wood engraving by Joseph A. Adams of New York City. They were published the following year in 'Mapes Magazine'."

"1874 Thomas Alva Edison (1847-1931), American electrician and inventor, develops the quadruplex telegraph system, permitting the sending of four messages over one wire simultaneously, two in each direction."

"1875 Elihu Thomson (1853-1937), American electrician, operates the first radio set in history, antedating Hertz and Marconi."

"1885 George Westinghouse (1846-1914) of Pittsburgh, Pennsylvania, secures the Gaulard and Gibbs patents by which the Westinghouse Electric Company develops and introduces alternating current in 1886."

"1889 Charles Proteus Steinmetz (1865-

1923) of Germany arrives in the United States and starts work in Yonkers, New York, as a twelve-dollar-a-week electrical draftsman for Eickemeyer and Osterheld."

"1944 As of July, television broadcasts are being made from 9 stations in the United States—three in New York, one each in Philadelphia and Albany-Schenectady, two each in Chicago and Los Angeles."

An appendix includes a list of National Electrical Manufacturers Association member companies, giving the name of the original company, the date of founding, and the name and title of the founder and of the first president.

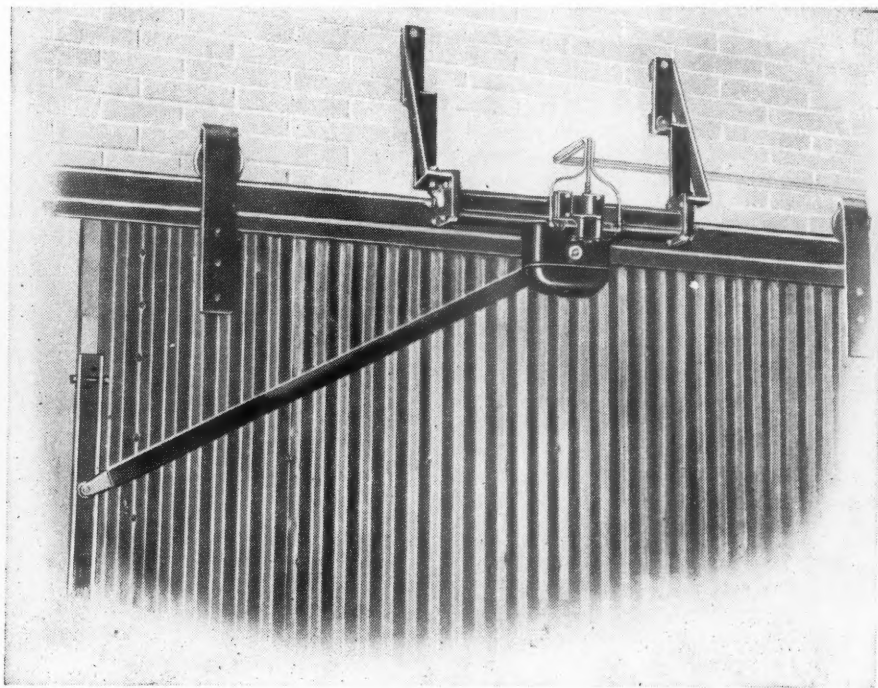
Operators for Sliding Doors

A LINE of pneumatic operators for single sliding doors with either a level or inclined track, which operate on air pressures of 80 to 100 lb., has been developed by the National Pneumatic Company, New York. These new door operators can be applied to newly-installed doors or to those already in use. The units, which have been standardized and can be ordered in complete kits, are made for door openings of various widths and are accompanied by simple instructions for installation—no critical adjustments are necessary.

The speed of door opening and closing is pre-set at the factory, but each pneumatic door operator is equipped with speed adjustment screws which permit regulation to suit special conditions. Remote controls for opening the doors without delay are available for expediting material handling, as are also a wide variety of other controls and interlocking arrangements.

For example, the door controls can be interlocked with fire detection equipment, if desired.

These pneumatic door-operating mechanisms are said to be unusually reliable in operation and free from maintenance requirements. They save time in opening and closing doors manually, conserve heat and conditioned air, aid soundproofing and fire-protection, and stimulate efficiency.



The pneumatic operators for sliding doors promote efficiency and can be interlocked with fire detection equipment

GENERAL NEWS

Shippers Cooperated Fully on Embargoes

Kendall cites general understanding of situation confronting carriers

Leading off his May report on the "National Transportation Situation" with a discussion of the "first nationwide embargoes" on rail, express, and parcel post shipments, which were in effect from 12:01 a. m. May 10 until 12:01 a. m. May 13, Chairman Warren C. Kendall of the Car Service Division, Association of American Railroads, expressed his feeling that the shipping public "cooperated splendidly" during the three-day ban and during the period prior thereto. As Mr. Kendall pointed out, the embargoes were the result of the bituminous coal miners' strike, and they were lifted when the miners returned to work for a two-weeks truce period.

"There was general understanding," Mr. Kendall said, "of the serious situation confronting the carriers in the event coal mining was not resumed, and our investigation of permit applications indicated that shippers and receivers were reducing their requests to immediate and essential needs." Nevertheless, Mr. Kendall revealed that the Car Service Division "received and processed several thousand applications for permits," its staff having been "literally swamped with a terrific volume of inquiries by phone, letter and telegraph, and by a constant stream of callers."

Following through to his discussion of the open-top-car situation, Mr. Kendall asserted that the resumption of bituminous coal mining "imposes a responsibility on all concerned to build up seriously depleted fuel supplies." He noted that the equivalent of five weeks movement of coal—approximately 900,000 cars—had been lost during the strike, and pointed out that the coal now being produced will be distributed over widespread areas. Thus, as the C. S. D. chairman put it, "it will be urgently necessary that coal cars be given expeditious handling by shippers, receivers, and carriers." And he urged that "all concerned" renew "wartime measures for prompt release and movement of coal cars and thereby assure maximum coal production while the mines continue working."

Will Need Gondolas—With respect to gondolas, Mr. Kendall pointed out that the curtailment of steel operations caused by the coal strike resulted in a "temporary surplus" in Eastern territory. At the same time, however, "requirements are on a high level in the Pacific coast states, where some difficulty has been experienced," and it has been necessary to move empty gondolas

Chicago Great Western Picks New President

Harold W. Burtness, vice-president in charge of transportation of the Chicago Great Western, at Chicago, has been elected president succeeding Patrick H. Joyce, who has retired. Reviews of their careers will appear in the next issue of *Railway Age*. Mr. Joyce will continue his duties as a director and chairman of the executive committee. S. M. Golden, vice-president maintenance of way, structures, equipment and stores, has been elected vice-president of operations, a new position, and the positions of vice-president, transportation, and vice-president, maintenance of way, structures, equipment and stores have been discontinued.

there from the Central West. Meanwhile, road building activities are using a considerable number of high-side gondolas. So Mr. Kendall anticipated that, with the resumption of coal and steel loading, gondolas of all types would soon be "in heavy demand."

There are also heavy demands for flat cars at West coast ports for the handling of military equipment being returned from the Pacific war theatre. Otherwise the supply of flats "is easy but tightening up rapidly as steel and agricultural implement plants return to full production." Road building and other construction activities have kept all covered hoppers in active service, and there is a "brisk demand" for such cars. Railroads are beginning to receive deliveries of covered hoppers ordered late last year, Mr. Kendall said, adding that builders "are being pressed for early deliveries on those cars now on order."

Coming to his discussion of the box-car situation, the C. S. D. chairman predicted that requirements for such cars will continue to increase. He noted the recent tapering off of grain loadings until the total for the week ended April 27 was lower than for any week since May 4, 1942, but grain loadings have picked up since May 4 and May 11 brought reports of 53 country elevators blocked for lack of cars. Mr. Kendall said that this was not entirely due to an actual shortage of cars, but it did indicate the need for readjusting car distribution schedules.

Meanwhile the C. S. D. chairman emphasized that requirements for box cars for other than grain loadings continue on a high level, "as evidenced by an average in excess of 378,000 box cars loaded per week during the eight weeks ended April

(Continued on page 1072)

Centennial Forum Honors Westinghouse

"Science and Civilization" the theme—One session on transportation

The George Westinghouse Centennial Forum, the general theme of which was Science and Life in the World, organized in celebration of the one-hundredth anniversary of the birth of the great inventor and developer, brought together more than 700 of the leading scientists, engineers and scholars of America at Pittsburgh, Pa., on May 16, 17 and 18 for the consideration of a program of symposia and addresses which dealt with atomic energy, transportation, communications, biological science, and future progress in science and engineering, all from the aspect of their relation to civilization at home and in the world at large.

The forum, sponsored by the Westinghouse Educational Foundation, opened with a symposium on Science and Civilization, under the chairmanship of Dr. Robert E. Doherty, president of the Carnegie Institute of Technology, at which the addresses were presented by Dr. Archibald V. Hill, foreign secretary of the Royal Society, England, on Scientific Ethics; by Dr. Isaiah Bowman, president, Johns Hopkins university, on Social Composition of Scientific Power, and by George W. Merck, president and director, Merck & Company, on Peacetime Implications of Biological Warfare.

In the symposium on the Future of Atomic Energy, Dr. J. Robert Oppenheimer, professor of physics, University of California, and the planner, organizer and director of the special laboratory at Los Alamos, N. M., where the atomic bomb was perfected, dealt with Explosive, and Dr. Enrico Fermi, professor of physics, University of Chicago, and distinguished for his accomplishments in atomic physics, with Power. The biological and chemical aspects of the theme were discussed, respectively, by Dr. Edward Chamberlain, professor of roentgenology and radiology, Temple University School of Medicine, and Dr. Hugh S. Taylor, dean of the graduate school, Princeton university.

Air Transport Patterns—Transportation—A Measurement of Civilization was the theme of a symposium addressed by Dr. Edward Warner, president of the Interim Council, Provisional International Civil Aviation Organization; by Vice-Admiral Emory S. Land, U. S. Navy (retired), former chairman of the U. S. Maritime Commission; by Martin W. Clement, presi-

(Continued on page 1073)

Vast Changes in R.R. Transport Forecast

Johnston, Carry and Hamilton
see many improvements
in the near future

"The next five years will witness the greatest transformation in the tools and methods of the railway business that we have ever had in anything like that period of time—and I do not except even the days of the pioneers," Wayne A. Johnston, president of the Illinois Central, declared at a luncheon meeting of the Chicago Association of Commerce on May 16, in commemoration of the tenth anniversary of the "Green Diamond," his road's streamlined passenger train between Chicago and St. Louis, Mo.

Other speakers at the meeting were Champ Carry, president of the Pullman-Standard Car Manufacturing Company, and H. L. Hamilton, vice-president of General Motors Corporation, assigned to the Electro-Motive Division. During the course of the meeting it was disclosed that in the 10 years it has been in operation (that is, since May 17, 1936), the "Green Diamond" has carried over a million passengers.

Mr. Johnston asserted that in his opinion there is no basis for the pessimism expressed by some as to the long range outlook for rail traffic. He said that "new methods, new processes, new materials and new products are rapidly and completely changing the industrial ways of the country. A similar transformation is going on in agriculture. This transformation makes it plain that we are not going back to a pre-war economy. We must go forward to a post-war economy."

"There is only one place for the railroads to be in that situation, and that is in the thick of it—keeping abreast of developments, leading the way to bring the fruits of these developments to the communities, and the people along their lines," he declared.

Plenty of Traffic—Mr. Johnston cited as evidence supporting his expectation of greater rail traffic in the future the "greatest pent-up demand for goods of all kinds that we have ever had in America," heavy exports for at least five years while European housing and industry are rebuilt and capture of Latin American markets formerly held by European suppliers.

For the railroad industry, he prophesied a great period of modernization both of plant and services and a period of faster freight schedules "that can and will be maintained with the same fidelity as the schedules of our finest passenger trains." The railroad industry, he said, is a dynamic one, one which cannot stand still, and one in which there is constant "planning for the better."

Mr. Carry told the meeting of the progress the railroads had made in re-equipping their passenger trains to meet the needs of the future. Prior to Pearl Harbor, when passenger car construction was stopped, he said, the roads, together with the Pullman Company, had placed in service about 2,300 streamlined passenger cars, at a cost of approximately \$170 million. With the end of the war there have come orders for 2,218 more such cars and inquiries for many additional.

Mr. Carry paid tribute to the foresight of the management of the I. C., who, in 1936, had the courage to order an expensive new passenger train at a time when passenger travel by rail was at a low ebb. Because of that foresight, and that of other railroad managements, railroad passenger business increased 80 per cent in the eight years preceding Pearl Harbor, he said. He also told the group that the first streamlined trains, spectacular as they seemed at the time, were not the results of overnight inspirations, but, rather, were the work of many years of research, going back into the middle 1920's, in such fields as the development of strong lightweight steel alloys, aluminum alloys, improved car trucks, better brakes and many other items.

Transition in Power—Mr. Hamilton likewise stressed the lengthy period required to develop a new train such as the "Green Diamond," pointing out that the planning of the train began four to five years before it was ordered. Discussing the Diesel-electric locomotive, he asserted that there is now underway a definite transition period in which older types of motive power are giving way. The Diesel, he said, has demonstrated its economic possibilities. The roads, Mr. Hamilton asserted, are just now getting to the stage where, by eliminating other types of power on whole divisions, they can secure the full economies from all-Diesel operation that follow when water and other steam locomotive facilities can be abandoned.

Mr. Hamilton asserted that the Diesel was the most efficient converter of fuel to mechanical energy yet devised for railway service because of its ability to utilize as fuel products that are not usable in other ways. He declared that in ten years Diesels may be using fuels processed from raw fuels other than petroleum, mentioning specifically the possibilities of liquefying coal and permitting the bulk of the coal to be used for chemical and industrial purposes rather than wasting it in the form of gas and smoke.

Transportation Librarians to Meet at Boston

The Transportation Group of the Special Libraries Association will meet at the Statler hotel in Boston, Mass., on June 14 and 15. At a meeting to be held on Friday afternoon, June 14, Henry F. McCarthy, executive assistant to the president of the New York, New Haven & Hartford, will address the group on "Railroads at Crossroads". Aviation subjects will be discussed at a breakfast round table session on Saturday morning, June 15, and at 12:30 the group will tour the Boston Airport under the sponsorship of the American Airlines.

Superintendents Cancel Convention

At a meeting of the executive committee of the American Association of Railroad Superintendents held in Chicago on May 20, it was decided to cancel the convention of that association originally scheduled for the Hotel Stevens in Chicago on June 6-7-8.

California Service Sped by Six Lines

Hours cut from Chicago-Coast
schedules—Three new
trains June 2

The Atchison, Topeka & Santa Fe; the Missouri Pacific, in connection with the Denver & Rio Grande Western and the Western Pacific; and the Chicago & North Western and the Union Pacific, have announced improved passenger train schedules between the Mid-west and Pacific Coast cities to become effective June 2. The Santa Fe "El Capitan" and "Super Chief" will resume their pre-war running time of 39¾ hr., between Chicago and Los Angeles, Cal., a reduction of 2 hr. under present schedules. Westward these trains will leave Chicago on Tuesdays and Saturdays at 5:45 p. m., and 7 p. m., respectively, arriving in Los Angeles on Thursdays and Mondays at 7:30 a. m. and 8:45 a. m. Eastward these trains will depart from Los Angeles at 1:30 p. m. and 8 p. m., on Tuesdays and Fridays, arriving in Chicago at 7:15 a. m. and 1:45 p. m. on Thursdays and Sundays.

The "Chief," fast daily streamliner, will be speeded 1 hr. 50 min. westbound, leaving Chicago at 12:01 p. m. as at present, Kansas City, Mo., at 10:10 p. m., and arriving at Los Angeles at 10:00 a. m., the second day, instead of 11:50 a. m. Eastbound 25 min. will be cut from the running time of this train, to give an arrival in Chicago at 1:00 p. m., instead of 1:25 p. m. Running time of the "Chief" under the new schedules will be 48 hr. westward and 47 hr. eastward. The schedule of the "California Limited" will be quickened 3 hr. 45 min. westbound and 30 min. eastbound, the train leaving Chicago at 11:30 p. m., as at present, Kansas City at 10:45 a. m., and arriving in Los Angeles at 8 a. m. the third day. Eastbound this train will leave Los Angeles at 7 p. m., 30 min. later than at present, with its 7:30 a. m. third day arrival at Chicago unchanged.

Other Santa Fe Changes—Running time of the "Scout," coach and tourist car economy-type train, will be cut 3 hr. 15 min. westward and 1 hr. 45 min. eastward at this time. This train will maintain its 10:00 p. m. departure from Chicago, but will leave Kansas City at 8:45 a. m., and arrive in Los Angeles at 7:15 a. m., the third day, instead of 10:30 a. m. From California, the "Scout" will leave Los Angeles at 8:15 p. m., 1 hr. later than the present train, arrive Kansas City at 9:15 p. m., and Chicago at 8:15 a. m., the third day, 45 min. earlier. The San Francisco connection with this train, which also handles the "California Limited's" San Francisco equipment, has been quickened to provide a 7:25 p. m. arrival in that city, 2 hr. 50 min. earlier than now, and a 10 a. m. departure, 2 hr. 30 min. later.

The schedule of the "Grand Canyon Limited" will also be revised at that time to provide supertime arrival at Los Angeles instead of late evening, by reducing its running time westbound by 5 hr. 15 min. Eastbound a cut of 9 hr. 35 min. in the schedule of this train keeps virtually the present arrival at Chicago, while elimi-

nating one night en route. Through sleeping-car service to the rim of the Grand Canyon, which has been discontinued during the war, will be restored on this train to and from Chicago. Under the new schedules the "Grand Canyon Limited" will leave Chicago at 11 a. m., 45 min. later than at present, Kansas City at 9:30 p. m., arriving at Grand Canyon at 7:45 a. m., the second day, and at Los Angeles at 6 p. m. the third day, instead of 10:30 p. m. Eastbound this train will leave Los Angeles at 9 a. m., instead of 11:55 p. m., the previous day, leave Grand Canyon at 8 p. m., and arrive at Kansas City at 7:30 a. m. and at Chicago at 6 p. m., the third day, instead of 6:30 p. m.

A new train to be named "El Tovar" will begin operations on this date between Grand Canyon and Los Angeles. This train will handle standard and tourist sleepers between Grand Canyon and Los Angeles, which cars will operate through between Chicago and Los Angeles via the "Grand Canyon Limited" east of Grand Canyon. By means of this service tourists are enabled to spend an entire day at the Canyon, then continue their journey in the same cars in which they arrived. A ten-section, observation sleeper, through coaches, lounge car and dining car will also be operated on "El Tovar." Westbound the train will leave Grand Canyon at 8 p. m., arriving in Los Angeles at 11 a. m., the following day. Eastbound it will leave Los Angeles at 2:30 p. m., arriving at the canyon at 7:45 a. m. the next day. Connections at Barstow, Cal., will provide service to San Francisco.

The running time of the "Ranger," northbound, from Galveston, Tex., Houston and Ft. Worth will also be reduced on June 2, to provide a 10:15 p. m. arrival in Kansas City, 45 min. earlier, and a 9 a. m. arrival in Chicago, 1 hr. earlier, while maintaining the same departure times from the Texas cities. Schedule adjustments are also being made in other Santa Fe trains to continue present connections with transcontinental trains, which effect major improvements in services between California cities and Texas points and Denver, Colo.

"Royal Gorge" Scheduled—On the Missouri Pacific—Denver & Rio Grande Western—Western Pacific route, the "Royal Gorge" will be inaugurated between St. Louis, Mo., and Salt Lake City, Utah, where connections will be made with the "Exposition Flyer" for San Francisco, Cal. Through coaches, tourist and standard sleepers will be operated between St. Louis and Oakland pier (San Francisco). Westbound the new train will leave St. Louis daily on the M. P. at 1:52 p. m., arrive at Kansas City at 7:30 p. m., arrive at Pueblo, Colo., at 11:20 a. m. In Colorado D. & R. G. W. train No. 1, the present "Scenic Limited," will be renamed the "Royal Gorge" and will be scheduled to leave Denver at 8:40 a. m., 40 min. later than at present, connecting at Pueblo with the new M. P. train and leaving that point at 11:55 a. m., arriving at Salt Lake City at 7:05 a. m., 15 min. earlier than at present. From Salt Lake City the through cars from this train will be handled on the Western Pacific's "Exposition Flyer," which will be quickened to arrive at Oak-

P. & S. Convention Postponed

The convention of the Purchases and Stores Division, Association of American Railroads, originally scheduled to be held in Chicago on June 20-21, has been postponed because the existing problems of the railways make it essential for these officers to stay at their headquarters. It is the plan to reschedule this convention at some date next fall which has not yet been selected.

land pier at 8:05 a. m., the third day, 1 hr. earlier. Eastbound this train will leave Oakland pier at 4:40 p. m., as at present, Salt Lake City at 9 p. m., 1 hr. 30 min. earlier, and arrive at Denver at 6:50 p. m., 1 hr. 55 min. earlier. The St. Louis section will leave Pueblo at 3:50 p. m., arriving at Kansas City at 8:10 a. m., and at St. Louis at 4 p. m.

Between St. Louis and Kansas City the schedule of the "Royal Gorge" effects a reduction of 55 min. under that of the present train leaving St. Louis at 1:50 p. m., and provides a convenient mid-morning eastbound departure from Kansas City not now operated.

Between Chicago and Los Angeles, the Chicago & North Western and the Union Pacific will add a second 49¼ hr. non-extra-fare train in addition to the improved schedule of the "Los Angeles Limited" that was announced in the *Railway Age* of April 6. The new train will be known as the "Transcontinental" and will leave Chicago daily at 11 a. m., arriving in Los Angeles at 10:15 a. m. the third morning. Eastward this train will leave Los Angeles at 10 a. m., arriving in Chicago at 12:15 p. m. The "Transcontinental" will handle through coaches in which all seats are reserved, in addition to sleeping cars. Through sleepers between New York and Los Angeles via the New York Central's "Commodore Vanderbilt" and the Pennsylvania's "General" and between Washington, D. C., and Los Angeles via the latter's "Liberty Limited" will be carried in this train daily.

Another train to be placed in service by these roads between Chicago and Denver will be the "Columbine." It will also leave Chicago at 11 a. m., and, operating via Cheyenne, Wyo., will arrive in Denver at 8:50 a. m. the next day. Eastbound it will leave Denver at 3 p. m., arriving in Chicago at 2:05 p. m. Also beginning June 2, the Baltimore & Ohio will join with the C. & N. W. - U. P. systems in transcontinental sleeping car service when a through Washington-San Francisco sleeper is inaugurated via the "Shenandoah" of the B. & O. and the "Pacific Limited."

Another coast-to-coast sleeping car service, the fifth through car line to be established by New York Central, will go in effect June 1. This new service will operate every other day with the first trip from New York on June 1 and the first trip from Los Angeles on June 3.

Sleeping cars will leave New York on the "Iroquois" at 11:15 p. m., transferring to the "Golden State Limited" of the Rock

Island and Southern Pacific at Chicago and arriving at Los Angeles at 8:45 p. m. the third day. Eastbound, cars will leave Los Angeles at 11:15 a. m. on the "Golden State Limited," traveling via the "Commodore Vanderbilt" from Chicago and arriving at New York at 8:30 a. m. the third morning.

Transcontinental sleeping car service via the New York Central—"Overland" route will have its running time slashed by almost 15 hours after June 1. On the improved schedule, cars will leave New York daily on the "Commodore Vanderbilt" at 3:45 p. m., making direct connections with the new train of the North Western - Union Pacific, the "Transcontinental," arriving Los Angeles at 10:20 a. m. the third morning out of New York. Eastbound, service on the "Overland" route will be 15 hr. 25 min. faster, leaving Los Angeles daily at 10:00 a. m. on the "Transcontinental" and arriving at New York on the "Commodore Vanderbilt" at 8:30 a. m. the third morning.

Reduction of running time will also be made between New York and San Francisco, with cars leaving New York daily on the "Lake Shore Limited" at 6:30 p. m. and arriving at San Francisco at 2:20 p. m. the third day—a cut of 14 hr. 15 min. Cars will leave San Francisco at 11:30 a. m. on the "Overland Limited" and arrive at New York on the "Water Level Limited" at 10:00 a. m. the third morning.

C. & O. Calls "Black Market" Space Sales a "Scandal"

Another step in the Chesapeake & Ohio's campaign to bring about changes in current railroad practices was taken last week in the form of full-page newspaper advertisements which said that "the underground sale of sleeping car space is a national scandal," for which the "railroads cannot escape responsibility. The C. & O. Lines offer a solution that will kill the racket—if other roads will join."

All "block" sales of sleeping car space should be stopped at once, the C. & O. proposed. "All space should be reserved or sold in the name of the individual who intends to use it. Tickets should be non-transferable. Hotels, travel agencies and business houses could follow their present system, except that the space would have to be reserved or sold in the name of the individual passenger. The airlines do it this way," the advertisement said.

The question of so-called black market operations in the sale of Pullman reservations was raised by Gustav Metzman, president of the New York Central, at this month's meeting in New York of the Eastern Railroad Presidents Conference, of which Mr. Metzman is chairman.

Passenger traffic managers of the nation's railroads, the conference reported, have studied the subject of black market operations almost continuously during recent years. In instances where positive evidence could be obtained, prosecutions and convictions of the guilty persons were obtained. However, the report went on, great difficulty has been experienced in getting information. The Federal Bureau of Investigation as well as private investigating agencies were used to find out to what extent the alleged black market practices

exist. Passenger traffic managers have studied various remedies and have been asked to continue their studies, it was explained.

In a number of the larger eastern and mid-western cities, and in two eastern states, the railroads and the Office of Defense Transportation sponsored ordinances and laws, which were subsequently adopted, to control the sale of Pullman space, the report continued. Under these regulations, the fee for sales of space was limited to \$1 above the regular filed tariff and any violation was subject to the penalties of fine and imprisonment.

Canadian Roads Plan Freight Rate Increase

The Canadian railways are now preparing an application for an increase in freight rates, President R. C. Vaughan of the Canadian National recently told a House committee at Ottawa. After reminding the committee that railways in the United States had asked an increase in freight rates of 25 per cent he said it was difficult for the Canadian roads to decide just how much of an increase they needed.

"There are increases in operating expenses coming along almost daily," continued Mr. Vaughan, "new labor awards involving higher wages, increases being allowed in the prices of railway materials. So we would not like to make an application for increased freight rates and find we hadn't asked for enough."

Another important question raised before the committee by the head of the Canadian National was that of reduction in the fixed charges of the road, widely recognized to be top-heavy, he declared, explaining that the railroad had been negotiating with the Department of Finance on a plan whereby the government of Canada would accept C. N. income bonds to the extent of about \$391,000,000 in payment of the amount owing by the Canadian National for the repatriation of British securities during the war.

Arguing for a readjustment, Mr. Vaughan remarked, "even if our debt to the government regarding repatriated securities were put on a contingent interest basis our percentage of fixed charges to

operating revenues in 1944 would be 8.35 as compared with 6.5 for the Canadian Pacific and 6.0 for U. S. Class I roads. On any basis of comparison the C. N. R. is seen to be out of line in the relationship of its fixed charges to its gross revenues."

He then told of more difficult times to come for the railways in Canada. Their payroll had been steadily increased. "We do not know," he said, "to what level traffic volume will decline from its wartime level but we are concerned with these huge additional operating charges. We also foresee increased bus and truck competition, deepening of the St. Lawrence Waterway and increased air transportation. We do not want the 'railway problem' to reappear."

"We are in the toughest kind of a squeeze play," said Mr. Vaughan. "Our selling prices are frozen but our production costs are mounting in ominous fashion. Even a continuation of a traffic volume at wartime levels would not suffice to enable the railway to shoulder the additional burdens without relief of some sort. Traffic volume is now falling, and it now looks as if the first five months of the year our traffic receipts will be \$20,000,000 below those of the same period last year."

Equipment on Order

Class I railroads on May 1 had 39,708 new freight cars on order, according to the Association of American Railroads. On the same date last year, they had 33,727 on order.

This year's May 1 total included 12,670 hoppers, including 3,483 covered hoppers; 5,261 gondolas, 1,163 flat, 12,647 plain box, 6,309 automobile, 1,558 refrigerator, and 100 miscellaneous freight cars.

The Class I roads also had 490 locomotives on order May 1, compared with 554 on the same day in 1945. The former total included 74 steam, six electric and 410 Diesel-electric locomotives compared with 125 steam, two electric and 427 Diesel-electrics one year ago.

Class I roads put 11,115 new freight cars in service in the first four months in 1946, compared with 16,314 in the same period last year. Those installed this year included 3,823 hoppers, including 583 covered

hoppers, 2,005 gondolas, 19 refrigerator, 55 flat, 894 automobile box and 4,319 plain box freight cars.

They also put 59 new locomotives in service in the first four months, of which 29 were steam, and 30 were Diesel-electrics. New locomotives installed in the same period last year totaled 191, of which there were 32 steam, and 159 were Diesel-electrics.

Freight Car Loadings

Loadings of revenue freight for the week ended May 18 totaled 688,240 cars, the Association of American Railroads announced on May 23. This was an increase of 3,298 cars, or 0.5 per cent, above the previous week, a decrease of 180,674 cars, or 20.8 per cent, under the corresponding week last year, and a decrease of 181,835 cars, or 20.9 per cent, below the comparable 1944 week.

Loading of revenue freight for the week ended May 11 totaled 684,942 cars, and the summary for that week as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For the Week Ended Saturday, May 11, 1946

District	1946	1945	1944
Eastern	150,199	146,390	161,356
Allegheny	129,357	176,079	195,090
Pocahontas	15,540	53,870	55,571
Southern	116,104	127,496	127,519
Northwestern	97,272	128,168	131,081
Central Western	113,267	127,275	123,704
Southwestern	63,203	79,486	72,861

Total Western Districts	273,742	334,929	327,646
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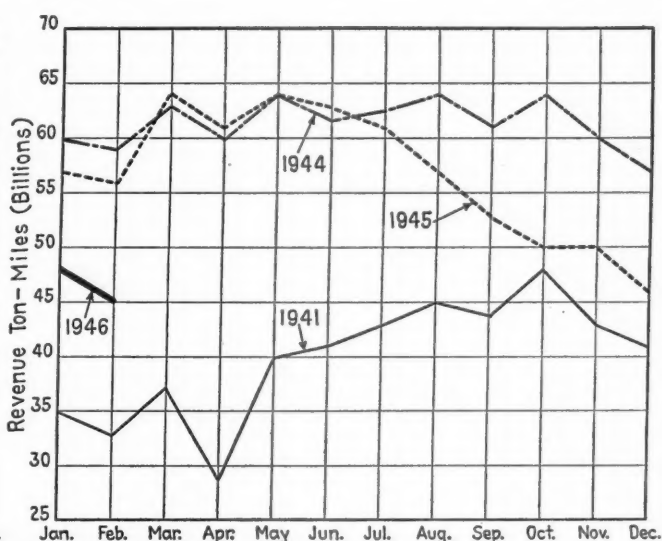
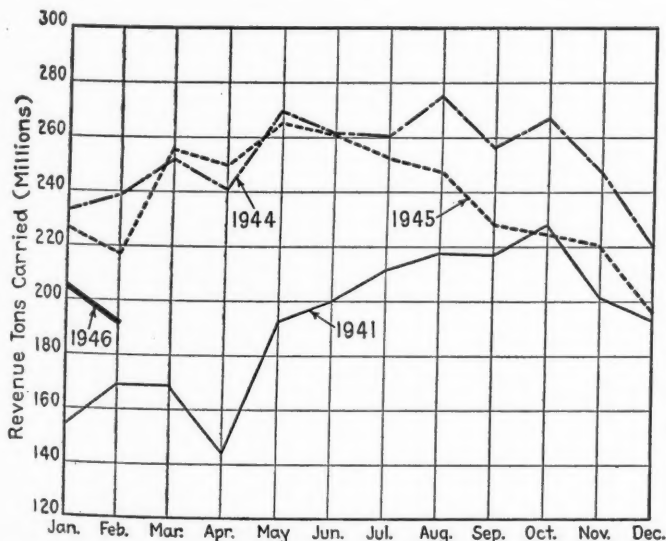
Total All Roads	684,942	838,764	867,182
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Commodities:			
Grain and grain products	41,148	49,498	40,011
Livestock	16,022	16,027	15,709
Coal	34,573	139,516	177,661
Coke	5,093	14,913	15,006
Forest products	45,903	42,926	47,207
Ore	26,174	75,083	79,552
Merchandise l.c.l.	126,968	108,511	106,622
Miscellaneous	389,061	392,290	385,414

May 11	684,942	838,764	867,182
May 4	671,311	866,034	835,538
April 27	659,952	899,950	850,441
April 20	650,743	864,700	838,737
April 13	649,194	847,013	798,685

Cumulative total, 19 weeks	13,693,364	15,160,363	15,207,419
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In Canada.—Carloadings for the week ended May 11 totaled 68,478 cars compared with 66,627 cars for the previous week and



Revenue Tons and Revenue Ton-Miles—1946 Compared with 1941, 1944 and 1945

58,934 cars for the corresponding week last year, according to the compilation by the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
May 11, 1946 ..	68,478	33,241
May 12, 1945 ..	58,934	34,994
Cumulative totals for Canada		
May 11, 1946 ..	1,258,425	658,254
May 12, 1945 ..	1,256,216	706,159

April Ton-Miles

The volume of freight traffic handled by Class I railroads in April amounted to about 40 billion ton-miles, according to a preliminary estimate by the Association of American Railroads. The decrease of about 35 per cent under April, 1945, was attributed in part to the bituminous coal miners' strike.

Revenue ton-miles of service performed by Class I roads in the first four months

	1946	1945	Per cent Change
January	48,241,378,000	56,808,024,000	dec. 15.1
February	45,089,938,000	55,425,307,000	dec. 18.6
March	*52,800,000,000	64,424,041,000	dec. 18.0
April	*40,000,000,000	61,406,982,000	dec. 35.0
Total 4 months	186,100,000,000	238,064,354,000	dec. 21.8

* Revised estimate.

^b Preliminary estimate.

of 1946 were 21.8 per cent under 1945, and 23.4 per cent less than in the corresponding period two years ago.

The accompanying table summarizes revenue ton-miles for the first four months of 1946 and 1945.

Shippers Cooperated Fully on Embargoes

(Continued from page 1068)

27, which equals the peak seasonal loadings in October, 1945, and exceeds those immediately prior to V-J Day." Moreover, he called attention to the fact that a large volume of old grain remains to be moved while estimates of the probable yield of winter wheat indicate it will make this year's total the third consecutive billion-bushel crop.

Demands for loader-equipped automobile box cars "have been extremely heavy," but the supply, "while close, has been adequate to satisfactorily take care of requirements" which have been affected from time to time by material shortages due to strikes. With the beginning of watermelon loading in the South, the demand for ventilated box cars is expected to increase until the mid-summer peak of such loadings is passed. In that situation Special Car Order No. 37 is in effect providing assistance to roads in Southern territory through relocation of ventilated box cars on home rails.

Reefers in Demand—Perishable loading "continues at an all-time high," Mr. Kendall said, adding that while all orders had been protected on a current basis, it was nevertheless "evident that a shortage of refrigerator cars may occur about the middle or the latter part of May." The C. S. D. chairman went on to say that every effort is being made by the railroads to increase the movement of empty refrigerator cars, and that further improvement

is being made in the repair program of bad order cars—"but this is contingent upon the ability of the owners to secure the necessary materials."

With respect to l.c.l. freight, Mr. Kendall said that "in spite of overtime hours, including Sunday operation when labor can be induced to work, there is a growing number of freight houses and transfers, mostly in the East, where the work is one to three days behind." The effect of the embargo on the freight-house situation was "unfavorable," in that it did not ban shipments for a sufficiently long period to provide relief; and, moreover, the advance notice caused a bunching of deliveries to freight houses in advance of the normal schedule of shipping.

In further discussion of the l.c.l. situation Mr. Kendall again urged shippers to take advantage of Office of Defense Transportation permits allowing destination load-

ing of five tons or more in box cars returning to grain territory and refrigerator cars returning to the West. "The important advantages in time saving and reduced hazard of damage should dictate greater use being made of these permits," he said. "It is probable that, when practicable to accumulate freight for any period up to a week in order to make the five-ton minimum, saving in delivery time and a safer journey would be obtained."

Car Detention Down—April reports showed that car detention by receivers of freight over the free time was down from 18.18 per cent in March to 17.98 per cent, the best showing since November, 1945, when the figure was 16.53 per cent. The number of serviceable cars on April 1 showed a decrease of 2,226 under the March 1 total; and 4.4 per cent of all freight cars were awaiting repairs on April 1 as compared with 3 per cent on April 1, 1945.

In closing Mr. Kendall outlined the program which has been adopted by C. S. D. to improve arrangements for returning cars to home roads in order to meet loading requirements and to facilitate repair programs. At the same time he revealed that the A. A. R. board of directors had recently decided that present equipment requirements as a whole can best be met by the use of special car orders. Thus a return to full observance of the Car Service Rules "is not believed practicable at this time."

New Cuba-Florida Car Ferry

Chairman Warren C. Kendall of the Car Service Division, Association of American Railroads, has issued a circular informing railroads of advices received from the Florida East Coast that the West India Fruit & Steamship Company will establish a car ferry for the interchange of railroad cars

via the port of Palm Beach, Fla., and/or Port Everglades, for movement to and from Havana, Cuba, the service to begin operating on or about June 1. The F. E. C., Mr. Kendall said, "will assume responsibility for the safe return and for the condition of equipment under Mechanical Rules and will make customary per diem and mileage settlements with the owners."

"Under Car Service Rule 4," he continued, "consent of the freight car owners is required before equipment may be delivered to this ferry line. In order that there may be no delay in the inauguration of this service, it will be appreciated if you will immediately advise whether your consent is given to the delivery of your cars to the West India Fruit & Steamship Company ferry service. Thereafter appropriate supplement will be issued to Special Car Order No. 30 covering status of such authorizations filed with the Car Service Division."

General Gray Tells Why State Railroads Are Inefficient

The primary difficulties of the Military Railway Service in North Africa and Europe arose from the necessity of dealing with state-owned railways which are "necessarily inefficient," Major General Carl R. Gray, Jr., vice-president of public relations of the Chicago & North Western and formerly director of the United States Military Railway Service, declared in an address before the Chicago chapter of the Army Transportation Association, given at a luncheon in Chicago on May 21.

General Gray, in outlining some of the problems that the army had to surmount in achieving successful railroad operation in combat areas, described the basic organization methods of the various state-owned railways of North Africa and Europe, which, he said, were definite handicaps. Concerning the railways in North Africa, he explained that the basic organization consisted of departments of exploitation (roughly corresponding to the work under the supervision of a superintendent of transportation in the United States), transportation (train operation), traction (motive power and equipment) and right of way (track, signals, structures, etc.). When the United States Army moved into North Africa there was found to be no coordinated control except through the head of the railways who was located in Algiers, so that if the exploitation department offered a trainload of freight for movement, the traction department could, and often did, decline to furnish a locomotive to move it. As there was no local authority in charge of running the railway, an appeal to the head of the system (the president) was necessary to start the train moving.

As if this were not a sufficient handicap to efficient operation, each railway officer was found to have a military counterpart installed alongside of him who had more authority than the railway man. It was necessary, General Gray said, for United States soldier-railroaders to decentralize authority and set up operations on a divisional basis to promote sound, efficient operations.

Conditions in Italy were described as much the same except that the Italian State Railways had provided for 14 regional general managers so that lines of authority

were considerably shortened. In France, General Gray said, conditions were relatively simple so long as operations were confined to only one region. However, when it became necessary to interchange traffic between regions, the system became extremely cumbersome and inefficient due to the necessity of clearing a vast number of minor details through the national railway headquarters in Paris, details which, said, should have been ironed out locally.

Turning to lessons gained during wartime railway operation, General Gray asserted that coordination of all forms of transport, rail, highway, water and air is vital to success in war, adding that in his opinion it was highly desirable in times of peace as well. Each transportation agency, he said, has its advantages and each its limitations and coordination is the only means of utilizing each to its fullest advantage.

Centennial Forum Honors Westinghouse

(Continued from page 1068)

dent, Pennsylvania Railroad; by A. G. Boeghold, head, metallurgical department, research laboratory, General Motors Corporation, representing Dr. Charles F. Kettering; and Harland Bartholomew, of Harland Bartholomew & Associates, who spoke on transportation planning in urban areas.

Dr. Warner directed attention to the difference between the distribution of highway and air traffic among the agencies conducting the transportation. Whereas passenger transportation by privately owned motor vehicles probably represents more than 80 per cent of the total passenger movement by all means of transportation within the United States, he estimated that about 80 per cent of the air passenger movement in the United States is of common-carrier character; that about 5 per cent is by charter services; and that the remaining 15 per cent is about evenly divided between industrially-owned planes and private travel in private aircraft. These proportions he does not expect to change radically in the foreseeable future. He expects that common-carrier air travel may reach three times its present volume in the next five years, and the travel by private plane may rise to six or eight times its present volume, but that, even then, the total private air passenger transportation would still be only 10 or 15 per cent of the aggregate.

In discussing the relative importance of passenger and cargo transport, he cited 1935 as a basis of comparison, when passenger traffic constituted 83 per cent of the total ton-miles moved by the domestic air lines of the United States, and mail and express contributed 13 and 4 per cent, respectively. In 1945, he said, the percentages of mail and express had risen to 15 and 5, respectively, and the passenger load had dropped from 83 to 80 per cent. "Even though all first-class mail were to be carried by air," said Dr. Warner, "it would hardly bring the mail traffic to more than 20 per cent of the total ton-mile movement that is likely to exist three or four years hence; and I do not think that the common-carrier express and freight movement is likely to be built up to more than 20 per

cent of the total common-carrier traffic until rates have been reduced by at least 60 per cent from the lowest figure now prevailing, to a typical level of not more than 12 cents per ton-mile."

Mail, on the carriage of which air transport first became self-supporting, he said, is dispatched in such small units that the sender of the individual letter is seldom aware that he is contributing at present postage rates to a gross postal income of \$2 to \$8 per ton-mile of service rendered. "Passengers," he said, "in very large numbers have shown themselves willing to pay from 45 cents to \$1 per ton-mile for their own transportation with the precise point of diminishing returns depending on the rates of the competing forms of transportation and the quality of their service. The last stage of the progression," he continued, "will be the profitable carriage of cargo at rates low enough to stimulate large cargo movements. A fundamental difference between the position of the airplane and that of the surface conveyance is that whereas average freight rates per ton-mile by rail are only one-twentieth of the average ton-mile charge for carrying passengers, and on the highway the corresponding ratio is about one-third, the cost of carrying cargo in common-carrier air service under present conditions is more than half the cost of carrying an equal weight of passengers. The rate differential, therefore, runs much more heavily against the airplane on freight than on passenger movement."

The City and the Railroad — Mr. Bartholomew stressed the need for better planned cities in America, and dealt in general terms with the transportation plan which should be a part of the master plan. He referred to five aspects of the coordination of railways in the pattern of city transportation: suburban passenger service, which "could be expanded advantageously in a number of metropolitan areas"; more consolidation of passenger terminals; the problems of location and access to the union passenger terminal; the coordination of belt lines and freight yards with the master plan, and the coordination of railroad operations in cities, which he considers "is possible without consolidation of individual railroad systems". He referred to the Terminal Railroad Association of St. Louis as an example of one method.

In the years before the war, he said, "traffic was lost to other types of carriers, notably the auto truck. This loss was not due so much to the superior advantages of the truck as the failure of the railroads to coordinate and extend their facilities and services in the cities. In the years ahead

the planning of transportation facilities in urban areas should include extensive use of the railroad because of its many advantages, but this depends upon the extent of coordination, modernization and character of service the railroads are willing to undertake."

An abstract of Mr. Clement's address on rail transportation appears on another page of this issue. In all, four symposia were held on May 16 and 17 at the Syria mosque and individual addresses were delivered during luncheon and dinner sessions at the Schenley hotel, at which the sponsoring organization was the host. Saturday morning was devoted to an inspection trip through the Mellon Institute of Industrial Research.

A list of current publications will be found on page 1089; the table of Selected Income and Balance-Sheet Items of Class I Steam Railways appears on page 1090.

4th Quarter Loading Estimates Missed by 2.1 Per Cent

The Regional Shippers' Advisory Boards overestimated carloadings for last year's fourth quarter by 2.1 per cent, according to the latest comparison of the forecasts with actual loadings, issued recently by W. C. Kendall, chairman of the Car Service Division, Association of American Railroads. The variations by individual boards ranged from an overestimate of 19.8 per cent to an underestimate of 14.8 per cent, while the variations by commodities ranged from an overestimate of 24.1 per cent to an underestimate of 27.3 per cent.

The report shows that there were overestimates in nine commodity groups and underestimates in 19 groups. Overestimates also resulted in seven board districts and underestimates in six board districts. Mr. Kendall's statement said that "considering the transportation problems which arose in the fourth quarter, due mainly to reconversion problems and strikes, the statements show a remarkable degree of accuracy in forecasting."

He also recalled that the scores for last year's first three quarters were in turn overestimates of 2.8 per cent, 0.1 per cent, and 4.5 per cent. Thus the four forecasts averaged out to an overestimate of 2.1 per cent for the year.

Comparison National Forecast with Actual Loadings—Fourth Quarter 1945

Board	Carloadings Fourth Quarter		Percentage of Accuracy	
	Est.	Actual	Over Est.	Under Est.
Allegheny	1,005,637	944,967	6.0	..
Atlantic States	629,955	604,152	4.1	..
Central Western	313,115	316,494	..	1.1
Great Lakes	388,986	361,571	7.0	..
Mid-West	870,192	890,646	..	2.4
New England	96,071	110,325	..	14.8
Northwest	490,823	539,345	..	9.9
Ohio Valley	241,762	850,339	9.7	..
Pacific Coast	300,070	277,826	7.4	..
Pacific Northwest	240,292	192,829	19.8	..
Southeast	764,677	738,696	3.4	..
Southwest	437,205	475,351	..	8.7
Trans-Missouri-Kansas	352,117	382,337	..	8.6
Total All Boards	6,830,902	6,684,878	2.1	..

With the Government Agencies

Dept. of Commerce Urges a Fare Cut

Improved service and reduced charges are dictated by competition, it says

Reduction of passenger fares and continued improvement of service standards in order that they may compete successfully with air lines, inter-city bus lines and private automobiles in the expected heavy travel market are among the recommendations made for railroads in the latest industry report on "Domestic Transportation," released by the Department of Commerce. The report was prepared by the department's Transportation Division.

It says that the steady decline in military traffic and the lifting of restrictions on civilian travel by automobiles and air lines will probably result in a loss of some of the business gained by the railroads and bus lines during the war.

Adding that the private automobile is the strongest competitor for regular non-deluxe travel and that air lines are the chief rival for the railroads' reserved passenger traffic, the report suggests that faster schedules, more convenient accommodations, modern equipment and reduction of fares are the railroads' chief requirements for maintaining a high rate of passenger traffic.

"To make railroad coach travel more attractive, reduced fares and schedules and services that will match automobile travel in flexibility and convenience should be initiated," the report continues. "The direct cost per passenger-mile of driving an automobile is less than the present railroad coach fare. Including depreciation, insurance and overhead, the automobile cost is probably about equal to the rail cost."

The report suggests that railroads, in order to compete with air lines, should replace open-section sleeping cars with various types of room cars in an effort to encourage more first-class travel. It adds that despite the shorter trip by air, accommodations in such cars at reasonable rates might be preferred because of the greater convenience in the time of departure and arrival.

Reconversion of standard sleeping cars to tourist sleepers, extension of service at lower-than-first-class rates to the South and East, extension of through transcontinental sleeping car service and improvement of wayside facilities are among other recommendations listed in the report.

Transportation of Apples

The Interstate Commerce Commission has issued "as information" a report on "The Transportation of Fresh Apples," which is the first of a series of railroad

waybill studies being made by its Bureau of Transport Economics and Statistics. The studies are based on the waybills collected by the former Board of Investigation and Research in 1939 and supplementary data developed by the bureau.

The report, Statement No. 468, was prepared under the supervision of Dr. Ford K. Edwards, head cost analyst of the bureau, by Dr. Robert W. Harbeson, economist, and John L. Nichols, traffic analyst. The stated purpose of the series is "to present information hitherto not available in published form concerning the volume and distribution of traffic in various commodities and the rate structure and costs applicable thereto."

The present study covers 1,831 carloads of fresh apples, or 3.36 per cent of the 54,494 carloads terminated during 1939. The data presented show the origin and destination of the traffic by states and by rate territories; the relation of rates to distance; the relative levels of interstate and intrastate rates; the percentage of traffic moving under class, exception and commodity rates, respectively; the relative level of the rates as measured both by their percentage relationship to the applicable first class rate and their relationship to the out-of-pocket and fully distributed costs; and the transportation conditions under which the traffic moves, such as average length of haul, percentage of circuitry in the movements, average load per car, and the type of equipment used.

The information is presented separately for each intraterritorial and interterritorial movement, for each 50-mile mileage block, and for each type of traffic—class, exception, and commodity.

George A. Cook Resigns from National Mediation Board

George A. Cook, who has been a member of the National Mediation Board since January, 1938, will retire on July 1, it was announced recently at the White House after Mr. Cook had called on President Truman to submit his resignation. Mr. Cook's present term as a member of N. M. B. would have expired January 31, 1948; he was first appointed for the unexpired term of the late James W. Carmalt, and subsequently received three reappointments to full three-year terms.

Mr. Cook was born May 5, 1889, at Bloomington, Ill., and was in railroad service with the Alton and Chicago Great Western from 1905 until 1920, since which time he has been in mediation work. He served in turn with the National Mediation Board's predecessors—the United States Railroad Labor Board and the United States Board of Mediation, being secretary of the latter from 1928 until it was supplanted by N. M. B. in 1934. He was N. M. B.'s secretary from the time of its creation until his appointment to a membership.

Airlines' Share of Traffic is Larger

January business 65 per cent
above 1945 with rail travel
up only one per cent

Bringing up to date the observations it has made from time to time on comparative trends of railroad and airline passenger business, the Interstate Commerce Commission's Bureau of Transport Economics and Statistics pointed out in the latest issue of its "Monthly Comment" that the January, 1946, airlines' passenger-mile total was 65 per cent above that for 1945 while for rails the increase was only one per cent. In the first month of this year the airlines performed 4.54 per cent of total rail and air passenger miles (excluding commutation), as compared with 2.83 per cent in January, 1945.

"Despite the diversion of a large number of passenger carrying aircraft to military purposes during the war years," the Bureau said, "the domestic airlines have shown an uninterrupted growth in both passenger traffic and revenues since 1939. Based on revenue passenger-miles, the traffic on these lines increased 411 per cent in 1945 over 1939, as compared with an increase of 363 per cent in rail passenger-miles, excluding commutation traffic."

The airlines' proportion of the total rail and air passenger-miles reached 5.2 per cent in 1941 and then fell to a 1943 low of 1.94 per cent; but, as noted above, it was back to 4.54 per cent in January. When their traffic amounted to 5.2 per cent of the total in 1941, the airlines collected 12.85 per cent of the combined air and rail passenger revenues. In that year, a table in the "Comment" showed, the airline revenue per passenger-mile was 5.04 cents or 1.75 times the 2.88 cents paid in both rail and Pullman charges by travelers in parlor and sleeping cars. For 1945 the airline average was down to 4.77 cents per passenger-mile, or 1.62 times the average paid by rail travelers in parlor and sleeping cars, which was up slightly to 2.95 cents. Meanwhile the Bureau had interpreted the 1945 figures generally as indicating "a substantial recovery of a portion of the so-called 'first class' traffic by the airlines."

Higher Revenue per Car—To indicate how the intensive use of railroad equipment during recent years has been reflected in the revenue earned per serviceable unit, the "Comment" set up a table showing the average revenue per car in both freight and passenger services from 1939 through 1945. In 1944 the revenues per freight car and per passenger-train car were 82 per cent and 233 per cent, respectively, above those of 1939. Revenue per car in both services dropped somewhat in 1945, but that year's revenue per freight

car was still 76 per cent above 1939's while the revenue per passenger-train car remained up 222 per cent.

As the Bureau pointed out, the increases reflected in these indexes "are the combined result of a variety of factors, including changes in traffic volume, car utilization, composition of the traffic, and length of haul." It went on to call attention to the fact that in this year's first two months the average revenue per car in freight service was 16.7 per cent below that of the same period in 1945, and for cars in passenger service the average declined 9 per cent. Figures on the condition of equipment as of the close of February were interpreted by the Bureau as being "not as favorable as in the same month of either of the two preceding years," but they nevertheless were found reflecting an equipment situation "much brighter than in the same month of 1939."

The Bureau's usual analysis of railroad financial results pointed out that while railroad operating revenues in this year's first quarter were 18 per cent below those of the comparable 1945 period, the operating expenses were down only 0.4 per cent because of the inclusion in the 1946 quarter of \$148.2 as the cost of wage awards retroactive to January 1. The discussion went on to say, however, that charges for amortization of defense projects amounted to \$57.8 million in the 1945 quarter, compared to \$1.6 million in this year's first three months. Eliminating the amortization factor in both years, the Bureau added, would result in an increase of 3.3 per cent in expenses in the 1946 period instead of the 0.4 per cent decrease.

March freight revenues on a daily basis were 7.2 per cent greater than those of February, but 22.3 per cent under March, 1945. The March freight revenue index (based on the 1935-1939 monthly average as 100) was 186.2 as compared with February's 173.7 and March, 1945's 232.1. The March passenger revenue, on a daily basis, was 9.8 per cent under February and 14.3 per cent below March, 1945, the March index of passenger revenue being 327.1 as compared with 362.4 in February and 381.5 in March, 1945.

The Bureau's discussion of carloadings included the observation that the estimate by the Production and Marketing Administration of the Department of Agriculture that grain and grain products loadings for May will average 49,600 cars weekly "now seems rather high" in view of the fact that April loadings averaged only 35,100 cars weekly. Likewise it is noted that P. M. A.'s estimate of May livestock loadings is 14.9 per cent above similar loadings last year, while the June and July forecasts are also "much higher than 1945 loadings of livestock." P. M. A. has estimated that the May movement of perishables and semi-perishable domestically produced commodities which normally require refrigerator cars will total 183,600 carloads, an increase of 2.9 per cent above May, 1945.

Ore Movement Off—The ore movement on the Great Lakes got under way about the middle of April, the Bureau pointed out, noting that it had been planned to bring down this season a total of 62 million gross tons. While this would be

Government Seizes Mines

President Truman issued a May 21 executive order placing bituminous coal mines under government control and directing Secretary of Interior Krug to take them over and operate them, which he did as of 12:01 a.m. May 22. The two-weeks truce under which the striking miners have been back at work was scheduled to expire May 25.

The Presidential order authorizes Secretary Krug to negotiate with "duly constituted representatives of the employees" on matters relating to "terms and conditions of employment for the period of operation of the mines by the government." In the May 17 executive order whereby the President took over the railroads, there was no authorization for negotiations between Director J. Monroe Johnson of the Office of Defense Transportation and employee representatives. The order froze terms and conditions of employment as of the hour of the seizure, providing only that normal labor-management bargaining might go on as to wages and conditions of employment "to prevail after termination of possession and control under this order."

a smaller total than for any year since 1939, when shipments down the lakes amounted to 45 million gross tons, the Bureau anticipated that "current production difficulties may bring a downward revision of the 1946 estimate."

An analysis of the distribution of freight traffic by commodity groups in 1945 noted that the pattern "differed somewhat from the pattern in 1941, though less perhaps than might be expected." The proportions of agricultural products and of manufactures and miscellaneous were higher in 1945 than in 1941 by 3 and 1.5 percentage points, respectively, while products of mines dropped 4.3 points. Total tonnage originated in 1945 was 16.1 per cent above that of 1941, the range of percentage increases by groups being from 5.7 for forest products to 59.3 for products of agriculture.

Among other observations with respect to these data, the Bureau found it "of interest to note that 50.3 per cent of the total 1945 freight revenue was derived from the manufactures and miscellaneous traffic as compared with 42.2 per cent in 1941." Meanwhile, "the proportion of revenue derived from products of mines dropped from 27.6 per cent in 1941 to 21.4 per cent in 1945."

Figures presented on changes in the length of haul per ton of freight show that the miles per revenue ton per road increased from 203.3 in 1939 to 243.6 in 1944 and then fell back to 239.4 in 1945. For the first two months of this year the average was 235 miles, 12.3 per cent above the comparable 1939 figure. The average haul per ton for U. S. railways as a system, which the Bureau said is sometimes referred to as the "actual" average haul, rose from 351.21 miles in 1939 to 473.28

miles in 1944 but fell back to the "partly estimated" figure of 458 miles for 1945.

Railroad Bonds as Investments—

The recently-enacted law under which New Jersey will try out this year a new "yardstick" for qualifying railroad bonds as legal investments for savings banks prompted the Bureau to include in the "Comment" a discussion of "restrictions on investments of savings banks in railroad bonds." Among other things, the New Jersey law provides that railroad bonds may be bought by savings banks only if the coverage of fixed charges for the three preceding years shall have been better than average coverage for the period of all Class I roads in the United States. While there are numerous variations, state laws now generally require some stated relationship between earnings and fixed charges for the individual road involved.

New Jersey's new standard, as the Bureau pointed out, "measures eligibility in terms of the general situation of all Class I roads so that if the coverage for the bonds of all roads falls substantially, the eligibility of the securities of a particular road will not necessarily be disturbed." It went on to call attention to the fact that for the three years preceding 1946 the ratio of available income to fixed charges for all Class I roads was 2.55 times in 1943, 2.26 times in 1944, and 1.94 times in 1945. However, this average of 2.25 times fixed charges earned for the 1943-45 period "would exclude a number of the largest railroads in the United States which escaped receivership or trusteeship in the 1930's."

"It is a somewhat curious fact," the Bureau added, "that a study of 56 Class I railways for the six years 1924-29, made by John E. Oldham, showed a coverage of fixed charges by available income identical with that of all Class I roads for the three years 1943-45 (2.25 times). Most of the roads in the Oldham study showing a coverage of less than twice passed into the hands of receivers or trustees during the 1930's." A footnote identified the Oldham study as one appearing in the report on "Transportation and National Policy," published in 1942 by the former National Resources Planning Board.

New Trial on Duty to Traveler "Out of His Normal Mind"

The United States Supreme Court has granted a new trial in a case involving a \$250,000 suit against the Southern Pacific by a passenger who jumped out of the window of one of its moving trains and then brought the suit on the basis of an allegation that the railroad's agents "knew that he was 'out of his normal mind' and should not be accepted as a passenger or else should be guarded and that, having accepted him as a passenger, they left him unguarded and failed to stop the train before he finally fell to the ground." The ruling came in a five-to-two decision with Justice Murphy announcing the majority opinion while Justice Frankfurter filed a dissent to which Justice Reed subscribed.

The case was *Thiel vs. Southern Pacific Company*, and it reached the Supreme Court on appeal from a ruling of the Ninth

Circuit Court of Appeals which had upheld the verdict returned for the railroad by a jury in United States District Court at San Francisco, Cal. The appeal and the Supreme Court's ruling turned not on the merits, but on the method of selecting jurors, it being established that persons who work for a daily wage were excluded from the list because service would mean financial hardship. Justice Murphy's majority opinion called this "a failure to abide by the proper rules and principles of jury selection," and remanded the case for a new trial "by a jury drawn from a panel properly and fairly chosen."

Puts Bituminous Coal Sales on Adjustable Price Basis

Sales of bituminous coal after May 13, the day on which striking miners returned to work for a 12-day truce period, may be made on an adjustable pricing basis, according to a ruling of the Office of Price Administration. The ruling came in Order 1660 under General Maximum Price Regulation 120, and Order 57 under Revised Maximum Price Regulation 122.

The O. P. A. announcement pointed out that the authorization "permits producers, wholesale distributors and retail dealers to charge and collect the present ceiling prices on current deliveries, subject to the condition that the purchaser agrees to pay also the amount of any ceiling price increase that may result from the present wage negotiations." It was also noted that the authorization "is made specifically applicable only to those producers who agree to pay the finally approved wage increases retroactively to May 13, 1946."

President Signs Federal-Aid Airport Bill

President Truman has signed S. 2, the recently-enacted federal-aid airport bill which in its final form authorizes appropriations totaling \$500,000,000 to be matched with funds of the states, municipalities or other government agencies constructing airports approved by the Civil Aeronautics Administration for inclusion in its National Airport Plan. The \$500,000,000 is authorized to be appropriated on the matching basis for work in continental United States during the next seven fiscal years, the appropriation for any single year not to exceed \$100,000,000; and there is additional authorization for annual appropriations of \$20,000,000 each during the next seven fiscal years for work in Alaska, Hawaii and Puerto Rico.

The authorized funds, which still have to be appropriated by Congress, will be administered by C. A. A., its expenditures for administration, planning and research being limited to five per cent of amounts appropriated. Three-fourths of the remaining 95 per cent is to be apportioned among the states, one-half on the basis of population and one-half according to area; and the other fourth will be placed in a discretionary fund to be allocated by C. A. A. to projects deemed most appropriate for carrying out its airport plan. There is, however, a provision whereby all federal funds must be channeled through state authorities if a state so provides by its own laws.

The federal government's share of the

airport costs will be 50 per cent for class 3 and smaller airports and not to exceed 50 per cent for class 4 and larger airports. The classifications are those of C. A. A., based on length of runways. With respect to the larger airports, the bill requires C. A. A. to submit its proposed allocations of funds to Congress for specific approval.

Extension for Aggregate of Intermediates Alternative

Acting on the recent application wherein Walter J. Kelly, chairman of the committee on freight tariffs of the Association of American Railroads, sought a general special permission which would authorize publication in tariffs of rules providing for alternation of aggregate of intermediate rates with through rates and for the equalization of such rates by other than rate-making routes, the commission has failed to grant any such permanent relief but has issued a blanket amendment to outstanding special permissions extending their expiration dates from May 31 until November 30. Mr. Kelly's application was reported in the *Railway Age* of April 6, page 735.

Would Authorize President to Declare Strikes Illegal

Representative Buck, Republican of New York, has introduced H. R. 6409 to authorize the President to declare certain strikes contrary to the national interest. Under provisions of the bill any strike thus condemned would be "an illegal strike, any other law to the contrary notwithstanding."

It would be provided further that "any person who in concert with another aids or abets the continuance of an illegal strike" would be guilty of "conspiracy against the United States of America, and be subject to punishment provided by law therefor." However, nothing in the proposed law would "require an individual to perform service contrary to his own will."

Would Create Department of Civil Aviation

Bills to create a federal Department of Civil Aviation with cabinet rank have been introduced in the Senate by Senator Hart, Republican of Connecticut, and in the House by Representative Walter, Democrat of Pennsylvania. They are, respectively, S. 2171 and H. R. 6434.

The bills provide that the proposed new department, headed by a secretary, would take over all functions of the Civil Aeronautics Administration, Civil Aeronautics Board, and National Advisory Committee for Aeronautics. In offering his bill, Senator Hart told the Senate that he saw a "decided necessity" for a new executive department "devoted to the rapidly growing needs of civil aviation."

Unemployed Benefits in April Exceed 3 Million Dollars

With the payment of \$3,180,000 in unemployment insurance benefits to railroad men during the month of April, the United States Railroad Retirement Board reports that a total of \$11,850,000 has been paid out since July 1, 1945. Of this sum, the

board's report indicates, more than \$8,-600,000 was distributed during February, March and April.

That unemployment among railroad workers apparently is on the increase was indicated by the report which stated that while the April total expenditure was slightly less than the amount paid in March, it was still larger than in any other month except one since the payment of unemployment insurance benefits began in July, 1939. In this connection it was shown that during each of the last two weeks of April such payments were higher than those of either of the two preceding seven-day periods.

March Accident Statistics

The Interstate Commerce Commission on May 9 made public its Bureau of Transport Economics and Statistics' preliminary summary of steam railway accidents for March and this year's first three months. The compilation, which is subject to revision, follows:

Item	Month of March		3 months ended with March	
	1946	1945	1946	1945
Number of train accidents*	1,272	1,529	4,014	4,704
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	127	141	342	321
Injured	95	93	225	246
Passengers on trains:				
(a) In train accidents*				
Killed			3	1
Injured	2	61	249	528
(b) In train-service accidents				
Killed	5	7	18	14
Injured	238	193	657	612
Travelers not on trains:				
Killed	1		8	
Injured	98	79	308	320
Employees on duty:				
Killed	67	79	198	246
Injured	3,152	3,937	10,441	12,138
All other nontrespassers:**				
Killed	190	175	584	553
Injured	513	530	1,971	2,038
Total—All classes of persons:				
Killed	390	402	1,153	1,135
Injured	4,098	4,893	13,851	15,882

* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former cause damage of more than \$150 to railway property.

** Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Persons:				
Killed	178	162	571	509
Injured	353	266	1,307	1,193

I. C. C. Okays C. N. J.-Reading Commutation Fare Increase

The Interstate Commerce Commission in a report by Commissioner Alldredge has approved proposed increases of 20 per cent in commutation fares between New York and New Jersey points on the Central of New Jersey, New York & Long Branch, and Reading, and in C. N. J. commutation fares between Easton, Pa., and points in the New Jersey area extending from Phillipsburg through Elizabethport to Perth Amboy. The commission's order vacates the suspension of the tariffs involved.

Commissioner Alldredge pointed out that

the higher fares proposed would be on approximately the same level for equal distances as those previously approved by the commission for application on the Erie and steam-operated lines of the Delaware, Lackawanna & Western. He also noted that the commutation service of the C. N. J., which assumed the burden of justifying the increases, "not only fails to yield any profit but is being operated at an actual loss." The report added that "the proposed increase, while insufficient to eliminate the deficits from such service, will provide respondent some additional revenue."

April Employment

Railroad employment decreased 1.43 per cent—from 1,366,930 to 1,347,401—during the one-month period from mid-March to mid-April, and the mid-April total was 5.15 per cent below the total for April, 1945, according to the preliminary summary prepared by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. The index number, based on the 1935-39 average, was 134.2 for April, as compared with 137.3 for the previous month and 141.4 for April, 1945.

April employment was above that of the corresponding 1945 month in two groups, the increases being 0.81 per cent in executives, officials and staff assistants and 2.68 per cent in the group embracing transportation employees, other than train, engine and yard. The declines ranged from 1.99 per cent in the professional, clerical and general group to 13.34 per cent in the maintenance of way and structures category.

As compared with the previous month, there were declines in April in seven employment groups, the range being from 0.38 per cent in executives, officials and staff assistants to 2.93 for train and engine service employees. The only increase in employment over March, 1946, occurred in the maintenance of way and structures category, amounting to 0.6 per cent.

W. S. A. Would Further Extend "Temporary" Carrier Status

The War Shipping Administration has applied to the Interstate Commerce Commission for a second extension, from June 30 until September 30, of its "temporary" authority to operate as a common or contract carrier by water in coastwise or intercoastal service between points on the Atlantic, Gulf of Mexico, and Pacific coasts. The authority, opposed by the railroads, was originally granted last September with a December 31, 1945, expiration date, but the I. C. C. late last year approved an extension until June 30.

W. S. A. services under the authorization are being performed under contract by water carriers holding certificates or permits for operations on the routes involved. The present application assures the I. C. C. that W. S. A. will seek no further extension beyond September 30 if the commission has meanwhile completed studies of the rate situation affecting the domestic water carrier industry. As noted in the *Railway Age* of March 30, page 698, the commission has before it the W. S. A.

U. S. Maritime Commission petition seeking an investigation of the "lawfulness and reasonableness of existing railroad rates and practices in so far as the same are competitive with domestic water carriers." The I. C. C. has thus far taken no action with respect to the petition.

Rule on Security Bill

The House committee on rules has reported favorably a resolution which upon adoption by the House would provide for expedited consideration of H. R. 1362, the bill to liberalize the Railroad Retirement and Railroad Unemployment Insurance acts. As noted in the *Railway Age* of May 18, page 1027, the committee on interstate and foreign commerce has reported favorably a modified version of this Crosser bill which originally embodied the whole Railway Labor Executives' Association security program.

O. D. T. Will Make Report on War Transportation

Plans of the Office of Defense Transportation to make a report on wartime transportation and its own activities in connection therewith were revealed recently when President Truman transmitted to Congress a proposed modification of the agency's current appropriation. The modification would increase from \$14,000 to \$20,000 the limitation on the amount available for printing and binding.

The President's message was accompanied by a statement from Harold D. Smith, director of the Bureau of the Budget, who explained that the shift of funds was necessary to permit printing of the report.

"The report, which has already been prepared," Mr. Smith continued, "describes the transportation emergencies that arose during the war and discusses the steps taken by the carriers, the shippers, and the government to meet those emergencies. It relates, among other things, facts about the economies that were instigated in order to make maximum utilization of the domestic transportation system."

"This report will be an invaluable guide to the carriers and to the government agencies charged with their regulation during any transportation crisis that may occur in the future. In addition, it will be of interest to carriers and students of transportation in that it will aid in carrying over into peacetime some of the advancements made under the pressure of war."

I. C. C. Not "Railroad-Minded," Barnard Tells Floridians

"Any idea that the Interstate Commerce Commission is railroad-minded can exist only by reason of the fact that for many years the commission's jurisdiction and authority were limited to railroads," George M. Barnard, chairman of the I. C. C., declared in a recent address at Miami, Fla., before the Traffic Club of the Miami Chamber of Commerce, the Greater Miami Traffic Association and the South Atlantic and Florida Ports Conference at the Columbus hotel, Miami, Fla.

"I am certain that every member of the commission is fully conscious of the added responsibilities which were placed upon the

I. C. C. when water carriers were placed under its jurisdiction and I know that every effort will be made to regulate these carriers with due regard for their proper place in the national transportation system," he continued. "Despite the tremendous tasks and perplexing problems which lie ahead for both the regulated carriers and the commission, a strong transportation system will emerge from the present period of transition and the water carriers will, as in the past, be a vital part of that system. Aside from their importance in the peacetime commerce of the country, the special role of these carriers in war has established the necessity of their continued operation in the interest of national defense."

Mr. Barnard predicted that the principles of the national transportation policy, adopted by Congress in 1940, will play an important role in the "economic problems which lie ahead" for all forms of domestic transportation and "in the return of competitive rivalry for traffic."

Outlining the objectives of that policy and citing the attitude of the Supreme Court with respect to the elimination of destructive competition within each form and among the different forms of transportation, the speaker said that it was his belief that "with the rapidly developing need for increased revenues on the part of all of the different forms of transportation, this aim of the transportation policy to eliminate destructive competition will play an increasingly important part in the regulation of rates."

"There are many adjustments of rates in force today which are on a low level because of competitive rivalries of the past," he added. "Many of these rates directly affect water transportation and the ability of the operators to provide normal pre-war service. While the shipping public may seemingly or temporarily benefit from such sub-normal rates, actually it may suffer from lack or loss of adequate and dependable service."

Mr. Barnard said that some provision must be made whereby all of the forms of transportation can meet their present and future costs of operation. He declared that when the immediate problems of readjustment have been met and solved, water transportation will be found to have retained its relative place in the nation's transportation system.

I. C. C. Service Order Revives King's Routing Authority

Acting upon "representations of the Office of Defense Transportation" and upon information that "certain railroads have been unable to transport promptly traffic offered to them so as to properly serve the public," the Interstate Commerce Commission on May 18 issued Service Order No. 514, appointing O. D. T. Deputy Director Homer C. King agent of the commission to divert or reroute carload or l. c. l. freight or empty cars from the line of any road which, in his opinion, cannot currently accept and move such traffic. The order, effective from 5 p.m. May 18 until 11:59 p.m. June 30, unless modified, is similar to Second Revised Service Order No. 99 which expired April 30.

Service Order No. 480, issued at the

beginning of the miners' strike to permit cars loaded with unbilled coal to be held free of demurrage on mine or scale tracks, has been modified by Amendment No. 3 to restrict its application to bituminous coal subject to Solid Fuels Administration regulations which was loaded prior to May 1 at points where production of coal has not been resumed subsequent to May 12; and by Amendment No. 4 to extend the expiration to May 27.

Service Order No. 517, effective from May 21 until August 31, prohibits railroads operating in North and South Carolina from using stock cars or ventilated box cars for loading potatoes to alcohol processing plants. Service Order No. 518, effective from May 24 until July 15, prohibits the Norfolk Southern from holding for reconsignment or diversion at Berkley (Norfolk), Va., any car loaded with potatoes.

Service Order 458-B, effective on May 15 has the effect of reinstating Service Order No. 458, requiring the Chicago & Eastern Illinois, Chicago & North Western, Chicago, Burlington & Quincy, Chicago, Milwaukee, St. Paul & Pacific, Chicago, St. Paul, Minneapolis & Omaha, Great Northern, Illinois Central, Minneapolis & St. Louis, Minneapolis, St. Paul & Salt Ste. Marie, and Northern Pacific to give preference to filling order placed by country elevators for empty cars to load grain to specified terminal markets. The new order revises the market list to eliminate terminals in California, Utah, Colorado, Texas, Oklahoma and Kansas, except Kansas City, and also deletes Winchester from the Indiana list.

Derailment Due to Excessive Speed Through Turnout

Failure properly to control speed through a turnout caused the April 5 derailment of a Western Pacific passenger train at Pilot, Nev., where two passengers were killed and 71 passengers and three employees were injured, according to a report of an Interstate Commerce Commission investigation under the supervision of Commissioner Patterson. The derailment occurred when the train entered a siding at an estimated speed of 45 m.p.h., despite the fact that the crew had a train order restricting the speed to 10 m.p.h., the general limit over all turnouts provided in the road's applicable operating rules.

The train, No. 40, was an eastbound first-class passenger train, consisting of a 4-8-4 type locomotive and 16 cars. The train order, delivered to the crew at Elko, Nev., 123.2 miles west of Pilot, advised that the 4,490-ft. passing track at the latter point would be used as the main track "at a speed not to exceed 10 m.p.h." The main track was out of service to permit installation of a culvert.

The derailment occurred as the train entered the west siding-switch, entry being through a No. 10 turnout having a curvature of 7 deg. 25 min. 33 sec., without super-elevation. The maximum safe speed through the turnout was "about" 30 m.p.h., and the theoretical overturning speed was "about" 60 m.p.h. The west siding-switch is approached from the west in turn over 2,006 ft. of tangent track, 2,143 ft. of 2 deg.

3 min. curvature and 952 ft. of tangent. The grade is descending, varying from 0.9 per cent to 1 per cent. The switch was lined and locked for the movement into the siding, the switch points being spiked in that position; and a temporary signal had been set up 3,549 ft. to the westward.

The engine and first 10 cars of the train were derailed. The third to fifth cars, which were in turn two baggage-express cars and a coach, stopped on top of the first two cars (refrigerator-express cars) as the latter lay across the siding and at right angles to it. The sixth to eighth cars, inclusive, which were two coaches and a sleeper, stopped at various positions across the siding; and the ninth and tenth cars (sleepers) stopped practically upright and in line with the turnout. The engine and the first to ninth cars, inclusive, were "badly damaged," and the tenth car was "slightly damaged." All were of steel construction except the first two which were of steel-underframe construction.

The investigation revealed that all members of the crew understood the train order, but it also brought out the fact that the engineer was preoccupied with adjusting his throttle "to ease a severe pound on the left side of the engine." The conductor became concerned about the speed as the train approached the switch and "was making an attempt to open the conductor's air valve when the derailment occurred." Meanwhile, the engineer had made three brake-pipe reductions and, as the report put it, "the enginemmen thought the speed was being controlled properly." The locomotive was not equipped with a speedometer.

"The engineer," the report continued, "said that trailing smoke and steam obscured his view, and as a result he improperly estimated the speed of the train and the distance to the west siding-switch. The engineer was giving considerable attention to the pounding of the engine, and was endeavoring to reduce this condition by maintaining a greater than normal valve-chamber pressure on the descending grade. Consequently, the speed was greater than under normal conditions."

The brakes of the train had been tested and had functioned properly en route, the report also said. It added that "there was no defective condition of the engine prior to the accident."

Two More Clearances for Wage Adjustments

Railroad employees not covered by the recent arbitration awards or the recommendations of the emergency board which heard the case involving employees represented by the Brotherhood of Railroad Trainmen and Brotherhood of Locomotive Engineers may be given the same wage increases as the covered employees under a recent ruling of the Commissioner of Internal Revenue. The ruling follows that made with respect to employees involved in the arbitration and emergency board proceedings by Chairman H. H. Schwartz of the National Railway Labor Panel, as noted in the *Railway Age* of May 4, page 941; but the commissioner's order includes a proviso stipulating that it does not approve increases in salaries under his jurisdiction which are now in excess of \$7,500 per year.

Meanwhile Panel Chairman Schwartz on

May 13 issued General Wage Approval No. 2 which relates to the establishment by railroads or air lines of wage rates for positions "in new plants or in new departments of existing plants," the term "plants" being defined to include "offices, stations, repair shops," etc. The general approval granted covers "the establishment and payment by a carrier, in the case of positions in new plants or in new departments of existing plants, of such rates or rate ranges as the same carrier has lawfully established for application to all jobs of equivalent combinations of duties and responsibilities throughout the carrier's entire system or a definite part thereof, and in so far as the establishment and payment of such identical pay scales in the new plants or departments represents no departure from the past practice of the carrier in similar situations."

In the case of positions within the scope of collective bargaining agreements, the approval is applicable only in the event that establishment and payment of the rates or rate ranges "meet with the concurrence of the duly recognized bargaining representatives of the employees." Also, the authorization is "permissive and shall not be construed as directing or ordering payment of such rates or rate ranges as are herein approved."

Hawkes Joins Senate Group to Probe Reorganizations

Senator Hawkes, Republican of New Jersey, has been appointed to the Senate interstate commerce subcommittee which will investigate railroad reorganizations under the provisions of Senate Resolution 192. His appointment completes the subcommittee, other members of which were listed in the *Railway Age* of April 27, page 886.

V. A. Approves Enlarged Rail Shop Training Program

The Veterans' Administration has approved a program to offer standard apprenticeship training courses for six crafts in the shops of all major railroads. The program, which now becomes national in scope, was worked out in cooperation with the Railway Employees' Department, American Federation of Labor, and the Association of American Railroads.

It is based on a limited plan that has been in effect in some regions of the country. Operating under the terms of the Servicemen's Readjustment Act ("G. I. Bill"), the program eliminates the necessity for each railroad to obtain approval of the state approving agency in each state in which the carrier has shops.

The crafts for which the training has been approved are blacksmith, boilermaker, electrician, machinist, sheet metal worker and carman. Records of the A. A. R. show that shops teaching some or all of these crafts are located in every state and in the District of Columbia.

The V. A. has reported that it has sent the A. A. R.'s list of shops to its regional managers for reference in operating the program. The list gives the location of each shop and the crafts taught in each. V. A. regional managers are required to visit the shops located in their territories,

determine whether each shop is qualified and equipped to furnish an efficient course of instruction and work out training details with railway officers.

According to the V. A., several thousand veterans now in training in railroad shops will be eligible immediately to receive the subsistence allowances provided by the G. I. Bill. The allowances are payable at the rate of \$65 a month for veterans without dependents and \$90 a month for veterans with dependents, providing the amount of the V. A. subsistence and the training wage paid by the railroad does not exceed the wage paid to a beginning journeyman. In the latter event, the V. A. scales down its subsistence payments so that the total received by the veteran is not greater than that received by a beginning journeyman.

Chides Rail Union for Lowering "Dignity of Strike Votes"

Emergency boards "are not, and cannot be, endowed with power to properly dispose of cases referable to the [National Railroad] Adjustment Board," and "to deliberately create an emergency by threat of strike, not only lessens the usefulness of emergency boards, but it lowers the dignity of strike votes, and cheapens labor's immemorial right to strike." So said the emergency board created by President Truman on March 17 in its recent report on a Brotherhood of Railroad Trainmen-Chicago, Rock Island & Pacific dispute involving 17 grievances, every one of which "the parties agree . . . is referable to the Adjustment Board."

The emergency board was created after the B. of R. T. had taken a strike vote and called a strike for March 17, the day on which the President acted. Members of the board were Chairman Grady Lewis, Henri A. Burke, and Roger I. McDonough. The report discusses each of the 17 brotherhood claims, recommending denial of several and prosecution of others before the Adjustment Board. In chiding the union for being too ready to create "emergencies," the report had this to say:

"This board feels that it would not be doing its full duty to all concerned unless it again, specifically, call attention to the fact that: Every case assigned as a grievance by the strike ballot is one that is submittable to some one of the four Divisions of the Adjustment Board.

"The Railway Labor Act is the law designed by representatives of the carriers and employee organizations to effect orderly negotiation and settlement of their disputes. A suitable forum for dealing with every situation that might arise in labor-management disputes is provided for by the act. One of the most important of those forums is the Adjustment Board with its four divisions. To deliberately ignore that forum and its functions is to sabotage and ultimately destroy the act.

"It was never intended, and the act does not contemplate resort to a strike ballot to force emergency board action under section 10, until all other remedies have failed. . . .

"The fact that delay is experienced in processing claims through the First Division of the Adjustment Board is no justification for ignoring its existence. The delay there is largely functional, rather than organic. An active willingness on the part

of the brotherhoods and the carriers to vitalize that division would go far towards removing the delay.

"We, therefore, earnestly urge and recommend strict observation of the specific provisions of the act by all parties affected, to the end that its full benefits may be had."

I. C. C. Approves Landing Craft Service on Gulf Waterway

Water carrier services employing the landing-craft type of vessel on which loaded highway trailers will be transported from port to port are planned by Gulf-Canal Lines, Inc., which has recently received from the Interstate Commerce Commission a certificate authorizing operations as a common carrier between ports and points along the Gulf Intracoastal Waterway from Mobile, Ala., to Corpus Christi, Tex., and the Gulf of Mexico coast from Corpus Christi to Brownsville, including connecting ship channels and tributary waterways except the Mississippi above New Orleans, La., and the Trinity above Liberty, Tex. The commission's report by Division 4 is in No. W-923.

Gulf-Canal Lines, Inc., is the copartnership of Chester D. and David C. Bintliff, the actual applicants in the proceeding. They propose to use vessels and highway trailers acquired from the federal government as surplus war materials. The vessels will be of the L. C. T. (landing craft tank) and L. S. M. (landing ship medium) types which are equipped with a bow opening forming a landing ramp when open. The trailers proposed to be used are low-slung open top and van type, some of them equipped with refrigeration units. The report described the proposed operating plan as follows:

"All freight transported would be loaded on the trailers, which in turn would be pulled on and off the vessels by tractors. Each vessel would carry one tractor and a maximum of 12 trailers. All shipments of

10,000 lb. or more would be received or delivered in the trailers at any port designated by the shipper and would be transferred from and to the dock either by applicants' tractors or by a local cartage concern, whichever would be more economical, but no over-the-road service would be performed and the trailers would not be permitted to move beyond limits of the ports served. Any point along the waterway would be served if landings could be effected. Shippers and receivers of freight would load and unload the trailers. For shipments of less than 10,000 lb. pick-up and delivery service would be maintained within the terminal areas of the larger ports."

Railroads and water carriers serving the ports and points involved were protestants. The commission noted, however, that adequate rail service "is of itself no bar to the issuance of a certificate to a water carrier." It added that, with respect to the protesting water carriers, the applicants' proposed service "would be superior to the service of any of the water carriers operating in this area at the present time."

Air Board Moves to Regulate Non-Scheduled Carriers

Making its first move to regulate non-scheduled air carrier services which have been developing rapidly since the end of the war, the Civil Aeronautics Board has amended its Civil Air Regulations to impose safety requirements on such operators. The amendment adds a new Part 42 to the regulations, effective August 1.

Heretofore the non-scheduled carriers have been free of C. A. B. regulations, the only requirement for their operations being that the planes be licensed by the Civil Aeronautics Administration. Having disposed of the safety matter, C. A. B. still has before it an examiner's recommendations that it assert regulatory authority over the "economic" phases of the non-scheduled services.

Materials and Prices

The following is a digest of orders, notices and information that have been issued by the Office of Price Administration, since May 13 and which are of interest to railways:

The O.P.A. has suspended price ceilings on most telegraph and teletype equipment. The suspension covers all complete units of telegraph equipment, teletype, facsimile and carrier current equipment, as well as parts for these items.

Price controls remain on storage batteries, wire and cable connectors, pole-line hardware and other general hardware items where use is not limited to telegraph or teletype service equipment and installations.

Abrasives—Manufacturers of artificial abrasive grain and producers of other abrasive products have been given interim price increases of 22.3 per cent and 24.2 per cent respectively, in O.P.A. order No. 623 to RR No. 136 effective now.

Asphalt—An average increase of 7½ per cent from manufacturer ceiling prices for asphalt and tarred roofing products in the eastern area has been authorized by O.P.A. in amendment No. 8 to revised price schedule No. 45.

Building Board—Building board, except hardboard, is added to the C.P.A. list of critically short construction materials which may be obtained with housing (HH) priorities for the building of conventional types of houses, through Direction 10 to PR No. 33, and amendment of Schedule A of PR-33.

Bolts, Nuts and Screws—Resellers of bolts,

nuts, screws and rivets may pass along the 7 per cent price increases granted producers of these products April 1, O.P.A. said in amendment No. 6 to SR No. 14G effective immediately.

Boring & Cutting Tools—Wood boring and cutting tools will go up between 8 and 9 per cent at retail as a result of a wage-price increase granted by O.P.A. Manufacturers may increase their March, 1942, prices by 17.3 per cent, and resellers may pass on the exact amount of the resulting increase in their invoiced costs, under Order 4991 under Section 1944.159B to R 188.

Steel Boilers—Manufacturers of steel power boilers and equipment which are still under price control, were given a 16 per cent increase over prices in effect June 1, 1941, in O.P.A. order No. 620 under RR No. 136, effective May 13.

Brass Products—To cover approved wage and allowable cost increases granted since the first of the year, increases in ceiling prices for producers sales of brass mill products averaging about 1.3 cents a lb. have been authorized by O.P.A.

Business Machines—Manufacturers of business machines, including typewriters, may increase their October, 1941, price 12 per cent, O.P.A. has authorized in order No. 12 under section No. 1499.159E of R No. 188.

Casein—Inventory on casein, gypsum board and gypsum lath have been tightened by C.P.A. amendments to PR No. 32, which also makes minor changes in the restrictions on lead and steel inventories.

Casein Glue—Ceilings for casein glue have been increased an average of 25 per cent in O.P.A. amendment No. 15 to SR No. 14F, effective May 13.

Compressors—A 17 per cent increase in manufacturers' prices for low-capacity compressors and condensing units has been authorized by O.P.A. in amendment No. 11 to order No. 1 under section No. 122, R No. 591.

Copper—Increase in manufacturers' ceiling prices for copper wire, copper alloy wire and copper clad wire have been authorized by O.P.A. in amendment No. 7 to R No. 82, effective at once.

Gray Iron Castings—Increases in ceiling prices for gray iron castings of varying percentages dependent upon periods in which the current price levels were fixed are covered in O.P.A. amendment No. 13 to R No. 244.

Lumber Yards—Maximum charges lumber distribution yards may charge for certain milling services were raised by O.P.A. in amendment No. 21 to second RR No. 215 effective May 11.

Millwork—Millwork manufacturers may make deliveries in May to fill certified orders placed by jobbers in February, March and April C.P.A. ruled in amendment to direction No. 1 to PR No. 33.

Photo Services—All photography services except photostating, blueprinting, microfilming and the processing of customer-owned materials commonly known as photo finishing have been exempted from price control by O.P.A. in amendment Nos. 81, 82 and 83 to RSR No. 11 to the general maximum price regulation.

Radiation—Ceiling price increases on certain types of cast iron radiation and accessories that have been out of production during the war have been authorized by O.P.A. in amendment No. 10 to order No. 1 under section No. 22, R No. 591.

Rubber—Reactivation of a component materials staff to translate rubber manufacturing production schedules into component requirements, and expansion of the technical operations branch has been announced by C.P.A.

Service Tools—Manufacturers of mechanics' hand service tools were given an interim wage-price increase of 5 per cent above March 1942 prices (or October 1-15, 1941, if no March 1942 price existed) in O.P.A. order No. 4990 under Section 1499.159B or R No. 188.

Steel Shapes—Fabricated structural steel shapes and plates formerly covered by the general maximum price regulation have been suspended from price control, by O.P.A. in amendment No. 16 to supplementary order No. 129.

Stock Millwork—An average increase of 23 per cent above present ceiling prices for stock millwork made from western pine lumber has been announced by O.P.A. amendment No. 16 to MP, effective immediately.

Stocks Screen Goods—Ceiling prices for stock screen goods, including southern and western pine screen doors and hardwood extension screens, were raised an average of 18.38 per cent from existing delivered maximum prices, or by 14½ per cent from f.o.b. mill prices, O.P.A. Amendment 7 to R 381.

Prices

Air Compressors—Manufacturers of industrial air compressors, 10 h.p. and less including integral parts and accessories have been granted an interim O.P.A. price increase amounting to 18 per cent over October 1941, prices, in order No. 622 under RR No. 136, effective May 21.

Fenceposts—O.P.A. has increased the retail markups on sales in quantities costing the retailer less than \$10 from 33¼ per cent to 60 per cent with the exception of yellow pine, on which the retail markup is restricted to 50 per cent over cost. Amendment No. 4 to R No. 324 is effective May 14.

Flooring—Discretionary increases ranging from 4½ per cent to 12½ per cent in producer ceilings on hardwood flooring, comprising 70 per cent of domestic production have been authorized by O.P.A. in amendment No. 5 to R No. 458, effective immediately.

Sheet and Strip Steel—Four changes in pricing provisions for warehouse resellers of prime hot rolled and cold rolled sheet steel and strip have been made by O.P.A. in amendment No. 39 to revised price schedule No. 49.

Equipment and Supplies

LOCOMOTIVES

The FINNISH STATE RAILWAYS are inquiring for an unspecified number of steam locomotives of the 0-6-0, 2-8-0, 2-6-2 and 2-10-0 types.

FREIGHT CARS

The DELAWARE, LACKAWANNA & WESTERN is inquiring for 500 50-ton box cars and 1,000 50-ton hopper cars.

The UNION PACIFIC is inquiring for 1,000 50-ton 40½-ft. box cars and 500 50-ton 40½-ft. auto cars.

The PACIFIC FRUIT EXPRESS COMPANY (owned jointly by the Southern Pacific and the Union Pacific) has placed orders for 2,000 new, lightweight refrigerator cars, authorization for the purchase of which was reported in the *Railway Age* of January 26. The cars will be constructed in equal lots by the American Car & Foundry Co., the General American Transportation Company, the Pullman-Standard Car Manufacturing Company and the Pacific Car & Foundry Co. These cars will weigh approximately 4,000 lb. less than previous standard cars of the same type and will feature in their construction several structural changes including new-type, convertible bulkheads, improved circulation fans, air ducts in car walls, herring-bone floor-racks, one-piece hatch closures, wrought-steel wheels and trucks equipped with longer springs.

PASSENGER CARS

The UNION PACIFIC has ordered 15 85-ft. sleeping cars from the American Car & Foundry Co. The CHICAGO & NORTH WESTERN and the WABASH have each ordered four 85-ft. sleeping cars from the same company. The cars are intended for joint operation by the respective lines.

The ATLANTIC COAST LINE, in conjunction with the PENNSYLVANIA, the RICHMOND, FREDERICKSBURG & POTOMAC, and the FLORIDA EAST COAST, is inquiring for 71 sleeping cars, 13 dining cars, 30 coaches and 3 baggage cars. Bids must be received by June 4.

Designed for use in the New York-Florida service, the cars will be of lightweight, stainless steel construction. The sleeping cars will be of the enclosed, private-room type, consisting of drawing rooms, double bedrooms, roomettes and bar-lounges.

SIGNALING

The UNION SWITCH & SIGNAL Co. is furnishing 10 sets of three-indication continuous cab-signal equipments to be installed on 5 three-unit Diesel-electric locomotives which are being built for the Chicago, Milwaukee, St. Paul & Pacific. These equipments will be arranged for use in

the territory now equipped for cab-signal operation between Portage, Wis., and St. Paul, Minn.

THE ILLINOIS CENTRAL has ordered materials from the General Railway Signal Company for the rehabilitation of an interlocking at Odin, Ill. The order includes a Model 2, unit-lever, electric interlocker with 4 switch levers, 8 signal levers, 1 highway crossing signal lever, and a crossing lock lever for the control of a crossing with the Baltimore & Ohio and 2 crossovers. Four levers will be equipped with forced-drop electric locks, and 6 spare spaces will be available.

THE ELGIN, JOLIET & EASTERN is installing a General Railway Signal Company Type KM2 coded remote control system to govern traffic over the Calumet river bridge in Illinois. The control machine will be located directly on the bridge. The 15-in. by 22-in. control panel will be equipped with 2 indication lamps, 6 switch levers, 2 signal levers, and a lock lever for the control of 8 switch machines, 5 signals, and a bridge lock. Model 5C electric switch machines, Type SA signals, Model 7 switch circuit controllers, Type K relays, and welded steel cases will be used in this installation.

Construction

BALTIMORE & OHIO.—This road has awarded a contract to the Wallace Stebbins Company, Baltimore, Md., for a power plant piping project at Grafton, W. Va. The estimated cost of this work is \$73,000. The W. M. Brode Company, Newcomers-town, Ohio, received contracts for work on bridge number 55/18, Spread, W. Va., at an estimated cost of \$16,810, and on bridge number 503, Friendly, W. Va., at an estimated cost of \$13,685.

LEHIGH & NEW ENGLAND.—This road has awarded a contract to F. R. Weaver, Bethlehem, Pa., for work on a freight station building at Bath, Pa. The estimated cost of the project is \$20,700.

LONG ISLAND.—This road has awarded a contract to the Fortis Contracting Company, Inc., Jamaica, N. Y., for the construction of a pedestrian footbridge at 67th avenue between Rego Park and Forest Hills, in the borough of Queens. The estimated cost is \$24,826. A contract for miscellaneous restoration and completion of the Atlantic avenue improvement, was awarded to John Meehan & Son, Long Island City, N. Y. The estimated cost of this project is \$38,810.

NORFOLK & WESTERN.—This road has awarded a \$3,000,000 contract to the McLean Construction Company, Baltimore, Md., for the construction of a warehouse-pier at Lambert Point, Norfolk, Va. The pier, the first part of a \$6,000,000 improvement program by the Norfolk & Western, will be 390 ft. wide and 1,100 ft. long, covering an area of about ten acres.

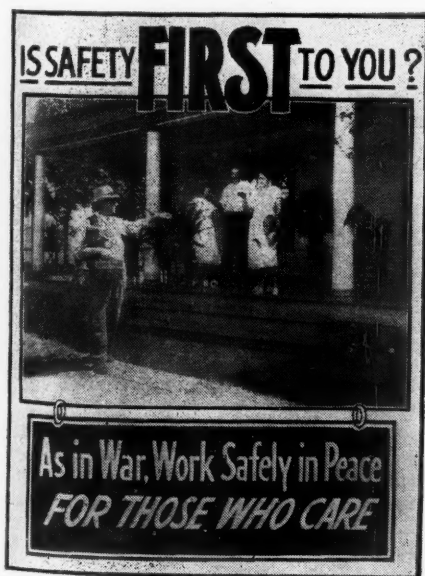
PENNSYLVANIA.—This road has awarded a contract to the John F. Casey Company, Pittsburgh, Pa., for the excavation and

masonry, together with some other incidental work, for a new 110-ft. turntable at 28th street, Pittsburgh. The Trimble Company, also of Pittsburgh, received a contract for the installation of a new steam line in the vicinity of the 28th street engine terminal. The total amount of both awards is approximately \$230,000.

PENNSYLVANIA-READING SEASHORE LINES.—Division 4 of the Interstate Commerce Commission has authorized this road to construct a 3.25-mile extension from its line near Pomona, N. J., to the racing grounds of the Atlantic City Racing Association.

PITTSBURGH & WEST VIRGINIA.—This road has awarded a contract to the Booth & Flinn Co., Pittsburgh, Pa., for lining tunnels number 1 and number 2 on the Donora branch, Washington county, Pa. The approximate cost will be \$200,000.

SPOKANE, PORTLAND & SEATTLE.—This road has awarded a contract to the Morrison-Knudsen Co., Boise, Idaho, for the construction of three 12 ft. by 12 ft. reinforced culverts and the filling of three timber bridges on the Oregon Trunk, in the Deschutes canyon, central Oregon, at a cost of \$184,000. A contract is being prepared to cover the placing of 50 ft. of concrete lining and the construction of a concrete portal for tunnel No. 1 of the Oregon Trunk, in the Deschutes canyon, at an estimated cost of approximately \$21,000. A contract will be awarded to cover the replacing of timber structures with steel spans across the Calapooia river, on the Oregon Electric, at Albany, Ore., at an estimated cost of \$90,000. The filling of a timber bridge and placing a reinforced concrete underpass, on the S. P. & S. near Washtucna, Wash., has been authorized, at an estimated cost of \$184,000. Five small bridges on the Oregon Electric, in the Willamette valley will be filled by company forces, at a cost of \$56,000.



Poster No. 274, July installment of the "All the Year—Every Year Safety Program" of the Committee on Education, Safety section, A. A. R. now being distributed

Supply Trade

Howard Fogg has been appointed art consultant for the **American Locomotive Company**.

L. W. Stolte has been elected secretary of **Fairbanks, Morse & Co.**, to succeed **Fred C. Dierks**, who has retired after serving 45 years.

Frederick A. Stevenson, president of the **American Car & Foundry Co.**, has been elected a member of the executive committee.

Charles F. Munroe has been promoted by the Hewitt Rubber division of **Hewitt-Robins, Inc.**, to manager of railroad sales, Eastern division, with headquarters in New York.

Charles J. Surdy, assistant to the president of the **Standard Stoker Company, Inc.**, has been elected vice-president in charge of development, research and export sales, with headquarters at New York.

E. W. Kush has been appointed agent in the railway supply field for Colorado by the **Rust Oleum Corporation**, and **R. B. Parrish** has been appointed industrial representative in the Michigan territory.

A. P. Hall has been elected vice-president of the **American Chain & Cable Company, Inc.** He will continue as general manager of sales, and his headquarters will remain at 230 Park Avenue, New York.

George L. Bladholm, recently released from the armed forces, has been appointed special representative for **Iron & Steel Products, Inc.**, with headquarters in their general offices, Hegewisch Station, Chicago 33. **Charles A. Marshall** has been appointed general manager.

Kenneth E. Greene and **William T. Campbell** have been appointed members of the sales staff of the **Dampney Company of America**, Hyde Park, Mass. Mr. Greene will have headquarters in the company's Chicago office and Mr. Campbell will be located in the Philadelphia office.

Herbert T. Florence has been elected president and general manager of the **Cleveland Crane & Engineering Co.**, Wickliffe, Ohio. He has been general manager of the company since 1938 and vice-president since 1941. **A. C. Garnett**, formerly secretary and treasurer, was named vice-president and treasurer. **W. G. Wehr** was made secretary, and **W. D. Vanderbilt**, assistant secretary.

Sidney Kelter, whose promotion to manager of the St. Louis, (Mo.) territory of the **Hyman-Michaels Company**, Chicago, was reported in the *Railway Age* of May 4, was born at New York on December 1, 1898. From 1937 to 1944 he was vice-president of the General Export Iron & Metal Co., with headquarters at Corpus Christi, Tex., and in December of the latter year Mr. Kelter was called into government service as district price specialist in the steel section of the Office of Price

Administration at St. Louis. In January, 1945, he went with the Hyman-Michaels organization, as assistant to the vice-president in charge of the St. Louis region, the position he held at the time of his new promotion.

S. D. Means, industrial sales manager for **R. G. LeTourneau, Inc.**, Peoria, Ill., has been appointed to the newly-created position of domestic sales manager, with responsibility for all sales in the United States, Canada, Hawaii, and Alaska. His duties will include management of LeTourneau's eastern, central, and western sales territories, and government sales, as well as continued personal supervision of industrial sales.

George R. Tierney has been appointed division sales manager, Pacific division, transportation department, of the **Johns-Manville Corporation**, with headquarters in San Francisco, Cal. Mr. Tierney entered the service of Johns-Manville in 1919 and was promoted to assistant division sales manager in 1939. **John H. Goodwin** has been named assistant division sales manager to succeed Mr. Tierney, also with headquarters in San Francisco.

The **Chester Manufacturing Company**, Lisbon, Ohio, was incorporated last month as the **Chester Hoist Company**. This move was made, the announcement said, in order to take adequate care of greatly increased business. **Hal F. Wright** was elected president of the new corporation. **Mary T. Wright** was elected vice-president and **Harry E. Hill**, secretary and treasurer. The announcement said also that the firm will materially expand its line.

George P. Torrence, president of the **Cleveland Pneumatic Tool Company** and vice-president and general manager of the **Rayon Machinery Corporation** since 1936, will rejoin the **Link-Belt Company** on July 1 as executive vice-president. Mr. Torrence, scheduled to become president of Link-Belt on November 1, after the retirement of William C. Carter, was with the firm from 1911 to 1936, when he resigned as president.

E. B. Carpenter has been appointed district sales manager for the **American Car & Foundry Company**, with headquarters at St. Louis, Mo., where he succeeds **L. W. Martin**, who has retired. Mr. Carpenter was born at Providence, R. I., and received his higher education at Worcester Polytechnic Institute. He entered the service of the American Car & Foundry Company in August, 1927, as a shop student at Berwick, Pa., and in April, 1928 he was transferred to St. Louis as sales agent. In May, 1940, he was appointed sales agent in charge of miscellaneous and railroad car sales, with headquarters as before at St. Louis.

Major General Gladeon M. Barnes, retiring assistant chief of ordnance of the United States Army, has joined the **Edward G. Budd Manufacturing Company** as engineering assistant to the president. General Barnes, who was responsible for the development of 1,600 of the 1,800 major ordnance items used by the army against Germany and Japan, the announcement said,

has resigned after more than 30 years in the service. He will assume his new post on June 1. In his new position, General Barnes will represent President Edward G. Budd in development engineering connected with the company's business of building stainless steel railroad passenger cars and automobile body assemblies and stampings.

C. Miles Burpee was elected a vice-president of the **Simmons-Boardman Publishing Corporation** by the board of directors at its meeting in New York on May 20. Effective with his election, Henry Lee, president, announced that Mr. Burpee had been placed in charge of sales of advertising in all the corporation's railway publications, with headquarters in New York. These publications include *Railway Age*, *Railway Mechanical Engineer*, *Railway Engineering & Maintenance*, *Railway Signaling*, and the *Locomotive, Car Builders'*, and *Railway Engineering & Maintenance Cyclopedias*.

Mr. Burpee was born at Edmundston, N. B., Canada, and attended the University of New Brunswick, from which he received the degrees of B. Sc. in C. E. in 1923 and M. Sc. in C. E. in 1926. His



C. Miles Burpee

early railway experience was gained during the summers of 1918-20 when he was employed successively as assistant building inspector, ballast pit clerk, chainman, rodman and instrumentman on the Edmundston division of the Canadian National. He was employed as resident engineer in charge of highway construction for the department of public works of the Province of New Brunswick during the summers of 1921-23.

He joined the faculty of the engineering college of Marquette university, Milwaukee, Wis., as instructor in surveying, descriptive geometry and mechanical drawing in the fall of 1923 and resigned the following year to enter the employ of the Delaware & Hudson as bridge and building supervisor of the Pennsylvania division on July 1, 1924. He was appointed track supervisor at Oneonta, N. Y., in 1925, served as acting bridge and building master at Plattsburg, N. Y., in 1926 and in the fall of that year was appointed bridge and building supervisor in charge of building and structural work in connection with the modernization of locomotive terminal facilities

and freight car construction shops at Oneonta. He was promoted to bridge and building master of the Saratoga division on January 1, 1928, and was appointed purchasing engineer at Albany, N. Y., in 1930. In May, 1933, he was promoted to research engineer and his duties were expanded to include the purchase and supervision of the inspection of all forest products in addition to applied research in conjunction with the procurement and use of all materials and supplies.

During 1937 he served as vice-president in charge of the railroad division of the Chipman Chemical Company, while on leave of absence from the D. & H. He returned to his former position that fall and in November, 1938, he resigned to join the Chicago staff of Simmons-Boardman as managing editor of the *Railway Engineering & Maintenance Cyclopedias*. In August, 1943, he was appointed purchasing and stores department editor of *Railway Age*. In September, 1944, he was appointed editor of *Railway Engineering & Maintenance Cyclopedias*; in November, 1945, was also appointed executive assistant, positions which he held at the time of his recent election.

Mr. Burpee has been an active member of the American Railway Engineering Association, the Purchases & Stores division of the Association of American Railroads, the American Wood-Preservers' Association (of which he is chairman of the publication committee and member of the nominating committee), the American Railway Bridge & Building Association (of which he was president in 1937-38), the Railway Tie Association, and the Roadmasters' & Maintenance of Way Association (of which he is a former director).

Charles Ringel, formerly assistant engineer, has been appointed mechanical engineer of the **American Arch Company, Inc.** Mr. Ringel joined the American Locomotive Company in 1911 as a special apprentice at the Roger Works, Paterson, N. J. Transferred to the engineering department of the Cooke Works in 1919, he



Charles Ringel

remained there until 1920 when he joined the engineering department of the Superheater Company, New York, where he stayed until 1943. Mr. Ringel in that year again joined the engineering department of American Locomotive. In 1945, he be-

came a member of the engineering staff of American Arch.

Thomas H. Fawcett has been appointed sales engineer for the locomotive division of the **Vulcan Iron Works**, Wilkes-Barre, Pa. Before joining Vulcan, Mr. Fawcett was connected with the Baldwin Locomotive Works for nearly thirty years, serving



Thomas H. Fawcett

successively as draftsman, designer, engineer and sales engineer in their locomotive division. Besides acting as sales engineer, Mr. Fawcett will supervise an extensive program of expansion and standardization.

Fowler McCormick, president of the **International Harvester Company**, has been elected chairman of the board of directors, succeeding **Judson F. Stone**, who has resigned. **John L. McCaffrey**, first vice-president, has been elected president to succeed Mr. McCormick. The office of chairman of the executive committee of the board of directors has been discontinued. **Sydney G. McAllister**, formerly board chairman, will continue as a director and member of the executive committee, as will Mr. Stone. **W. E. Worth**, former second vice-president, and **P. V. Moulder**, vice-president in charge of the motor truck division, have been elected executive vice-presidents. **W. C. Schumacher**, former sales manager of the truck division, succeeds Mr. Moulder, with the title of general manager.

OBITUARY

F. K. Murphy, vice-president of the Hanna Stoker Company, with headquarters at Cincinnati, Ohio, died recently in that city.

Walter W. Wilson, vice-president of the Roth Manufacturing Company (manufacturing subsidiary of the Vapor Car Heating Company, Chicago), died at his home in Oak Park, Ill., on May 12.

Emmanuel Woodings, vice-chairman of the board of the Woodings Forge & Tool Company and the Woodings-Verona Tool Works, died at Pittsburgh, Pa., on May 8. Mr. Woodings began his career as an apprentice machinist in the shops of the Verona Tool Works (now a part of the Woodings-Verona Tool Works). After 14 years in the shops, he advanced through the positions of foreman, general manager, vice-

FROM MINES TO SEABOARD



80% of The Virginian Railway's total freight tonnage in 1945 was in coal shipments, which ran over 12 $\frac{3}{4}$ million tons.

To aid in moving this tremendous tonnage from the mines to seaboard, in heavy trains at sustained high speeds, The Virginian placed in service last year a fleet of eight Lima-built 2-6-6-6 steam locomotives.

LIMA LOCOMOTIVE WORKS



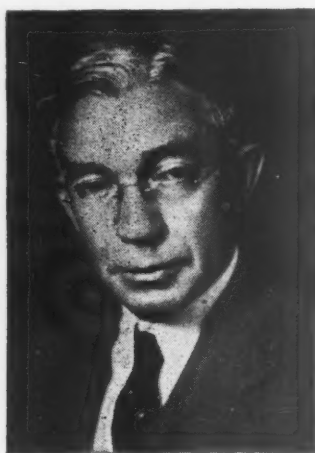
INCORPORATED, LIMA, OHIO

president and president. In 1924 he left the Verona Tool Works to form his own company, the Woodings Forge & Tool Co., which in 1931 became associated with the Verona Tool Works.

Franklin H. Smith, treasurer and a director of the Gold Car Heating and Lighting Co., Bush Terminal, Brooklyn, N. Y., died on May 18, in the Yonkers (N. Y.) General Hospital. He was 70 years old. Mr. Smith was born in New York and began his career in the executive offices of the New York Central. He had been connected with the Heating & Lighting Co. for 37 years.

Albert L. Vencill, executive patent attorney of the Westinghouse Air Brake Company and the Union Switch & Signal Co., died on May 14. He was 61 years old.

Born in Utica, N. Y., Mr. Vencill was graduated in mechanical engineering from Cornell university in 1907, and shortly thereafter joined Union Switch & Signal as an apprentice engineer in the engineering department at Swissvale, Pa. In 1909, he was transferred to the New York office as assistant to the patent attorney. Mr. Vencill returned to the Swissvale office in



Albert L. Vencill

1911 as assistant patent attorney, which position he held until his appointment as patent attorney in 1925. Appointed consulting patent attorney for Westinghouse Air Brake in 1934, in addition to his duties at Union Switch & Signal, Mr. Vencill was made executive patent attorney for both companies in 1936. He was a member of the Engineers' Club, New York, the Patent Committee of the National Association of Manufacturers, and the Pittsburgh (Pa.) Patent Law Association.

Financial

ATLANTIC COAST LINE.—Stock.—Division 4 of the Interstate Commerce Commission has authorized this road to issue 823,427 shares of common stock without par value to be exchanged for a like number of \$100-par shares outstanding. The exchange will be in accordance with action taken at the road's recent annual meeting, approving a change in the authorized capitalization from \$100,000,000 to 1,500,000

shares of stock, of which 1,350,000 shares will be no-par common and 150,000 shares will be \$100 par preferred. Only the 823,427 shares of common to be exchanged will be issued at this time, and the stated value of outstanding shares will remain \$82,342,700. The commission's favorable report cited the applicant's opinion that "common stock without par value has certain advantages over par value stock, viz., it will avoid any question of its power to dispose of the present common stock at less than its par value in future refunding transactions, as well as for other corporate purposes." The company's charter has been amended to make its main office Richmond, Va., instead of Petersburg.

Bowdon.—Stock.—The Bowdon Railroad & Transportation Company which recently acquired at the receiver's sale the former Bowdon Railway Company's 12-mile line extending from a connection with the Central of Georgia at Bowdon Junction, Ga., to Bowdon, has applied to the Interstate Commerce Commission for authority to issue 100 shares of capital stock with par value of \$100 per share. From the proceeds of the issue, which the application said had been fully subscribed and paid for, \$9,000 has been applied to purchase of the line while the remainder is being used for organization expenses and working capital.

CHICAGO & EASTERN ILLINOIS.—New Directors.—At the annual meeting of the stockholders of this road on May 10, three new directors were elected to office: C. W. Michel, 61 Broadway, New York, a partner in Carl M. Loeb, Rhoades & Co., to succeed R. L. Hoguet, who has retired; J. R. Kafes, Trenton, N. J., attorney, to succeed C. T. O'Neal, who has retired; F. S. Yantis, Chicago, in the securities business with F. S. Yantis & Co., to succeed F. O. Watts, who has retired. At the March 15 meeting, D. W. Hornbeck, attorney of Cleveland, Ohio, was elected to the board to succeed W. D. Fowler, who had previously resigned. Messrs. Hornbeck, Michel, Kafes, and Yantis were suggested as nominees by representatives of a group of shareholders consisting of E. N. Claughton, Miami, Fla., H. L. Hammack, Kansas City, Mo., G. E. Chandler, Miami, Fla., and their associates, who also own large interests in the Missouri-Kansas-Texas and the Chicago Great Western, and who have proposed the eventual merger of the three roads.

CHICAGO GREAT WESTERN.—New Directors.—Charles A. Morehead, Miami, Fla., E. E. Norquist, chairman of the Butler Manufacturing Company, Kansas City, Mo., and Harold W. Burtness, newly elected president of the road, were elected directors of the Chicago Great Western at the annual stockholders meeting held in Chicago on May 21.

DELAWARE, LACKAWANNA & WESTERN.—Annual Report.—Operating revenues of this road in 1945 totaled \$72,245,847, compared with \$79,029,144 in the preceding year. Operating expenses were \$60,676,469, compared with \$56,926,747. Fixed charges were \$6,439,547, compared with \$7,181,922. The net deficit for the year was \$3,292,145, compared with a net income of \$87,181.

Current assets at the year end were \$25,479,954, compared with \$35,197,260. Current liabilities were \$10,668,060, compared with \$16,787,609. Long term debt totaled \$121,513,073, compared with \$5,927,003.

Charges for additions and betterments to equipment aggregated \$6,617,311 against which there were credits for retired equipment of \$6,695,957, resulting in a net decrease of \$78,646. Additions and betterments to buildings, tracks and other fixed property totaled \$1,082,823 and credits for retirements were \$726,453, making a net increase in investment in fixed property of \$356,370.

FONDA, JOHNSTOWN & GLOVERSVILLE.—Annual Report.—Operating revenues of this road in 1945 totaled \$926,776, compared with \$906,764 in 1944. Operating expenses were \$640,606, compared with \$610,920. Fixed charges were \$19,182, compared with \$32,280. Net income totaled \$119,082, compared with \$131,017.

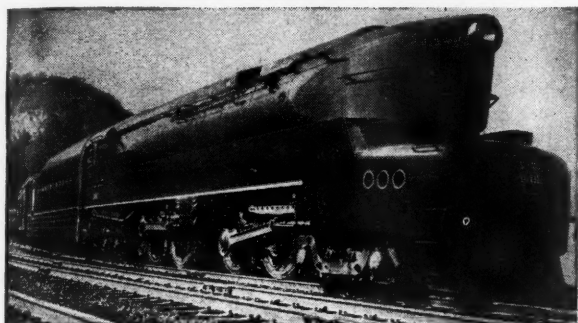
FORT WORTH & DENVER CITY.—Operating Agreement.—Division 4 of the Interstate Commerce Commission has approved arrangements for this road's continued joint use of the terminal facilities of the Dallas Terminal Railway & Union Depot and the St. Louis Southwestern in Dallas, Tex. The extension under new terms is provided for in a new agreement running 25 years from January 1, 1944, and renewable at the option of the applicant for an additional period of 15 years.

GREAT NORTHERN.—Annual Report.—Operating revenues of this road in 1945 totaled \$200,124,504, compared with \$207,657,795 in the preceding year. Operating expenses amounted to \$159,514,432, compared with \$132,595,460. Tax accruals were \$11,347,504, compared with \$40,001,258. Fixed charges were \$9,936,272, compared with \$12,919,278. Net income was \$24,157,590, compared with \$23,396,966. Current assets at the end of the year were \$93,579,636, compared with \$103,865,558. Current liabilities were \$42,792,107, compared with \$73,211,793. Long term debt was \$247,985,588, a decrease of \$19,187,988 under the 1944 total of \$267,173,576.

During the year, more than 200 new industries located on the road's property, the report said, and many more were established on private property served by Great Northern trackage. The types of new industries included elevators, general warehouses, potato warehouses, dried milk and frozen food plants, oil storage facilities and general distributing centers.

ILLINOIS CENTRAL.—Annual Meeting.—The resumption of dividend payments by this road is a matter constantly before the board of directors and depends upon three things, Wayne A. Johnston, president, told stockholders at their yearly meeting in Chicago. These contingent factors, Mr. Johnston added, are (1) the determination of plans for refunding the bonds maturing in the early 1950's, the details of which are almost completely developed and which are now being offered to the bondholders for their consideration; (2) the general state of business; and (3) increases in freight rates sufficient to offset the increased costs of materials and the recent wage awards by the arbitration boards, both of which, it

"Working 1,000-ton Trains at 100 m.p.h."

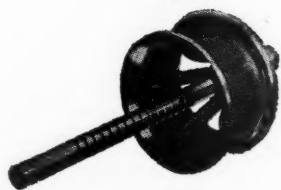


The Pennsylvania Railroad
will soon have 52 of these
locomotives in service

"A steam locomotive capable of working a train of 1,000 tons at 100 m.p.h. is a phenomenon of note, even in 1946. Yet the remarkable 4-4-4-4 passenger locomotives of the Pennsylvania Railroad, * * * in trial runs have demonstrated this speed capacity and even more. * * *

"The principal features of the design are the divided drive, so that the locomotive has the equivalent power and adhesion of a 4-8-4 locomotive without the heavy moving parts of a two-cylinder engine of that type, and the use of the Franklin system of steam distribution, with poppet-valves, to which the exceptional power output involved in the feats of performance mentioned above must be largely attributed."

— Editorial in *The Railway Gazette*, April 5, 1946



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK • CHICAGO • MONTREAL

STEAM DISTRIBUTION SYSTEM • BOOSTER • RADIAL BUFFER • COMPENSATOR AND SNUBBER • POWER REVERSE GEARS
AUTOMATIC FIRE DOORS • DRIVING BOX LUBRICATORS • STEAM GRATE SHAKERS • FLEXIBLE JOINTS • CAR CONNECTION

May 25, 1946

is estimated, will add \$22,000,000 to Illinois Central's yearly expenses.

ILLINOIS CENTRAL.—Acquisition of Leased Lines.—Division 4 of the Interstate Commerce Commission has approved transactions whereby this road will first acquire direct control and then purchase the properties of three of its leased lines, the capital stocks of which have been held by wholly-owned I. C. subsidiaries. The properties to be thus acquired with a view to simplifying the I. C. system's corporate structure are the Louisville, New Orleans & Texas of Arkansas, the Meridian, Brookhaven & Natchez, and the Baton Rouge, Hammond & Eastern. Noting that the I. C. had agreed to apply the terms of the Washington Job Protection Agreement of 1936 to employees who may be affected by the transactions, the commission conditioned its approval of the application on the carrying out of that commitment, meanwhile reserving jurisdiction on the matter of protection for employees not covered by the agreement.

KANSAS CITY SOUTHERN.—Would Acquire Subsidiary Properties.—At the annual stockholders' meeting of the Kansas City Southern, approval was given to the acquisition by that road of the properties of the following three subsidiary companies (the capital stock of which is owned by the K. C. S.), subject to decision of the board of directors: The Louisiana & Arkansas, the Kansas & Missouri Railway and Terminal, and the Kansas City Southern Transport Co.

LITCHFIELD & MADISON.—Control.—Charles Allen, Jr., a member of the New York investment banking firm of Allen & Company, has applied to the Interstate Commerce Commission for authority to acquire control of this road through the purchase of 14,000 shares, or 70 per cent, of the common stock from Jacob L. Holtzmann at \$48 per share, a total of \$672,000.

MISSOURI PACIFIC.—Reorganization Expenses.—Division 4 of the Interstate Commerce Commission has fixed \$7,086 as the maximum limit of final allowances to be paid to the protective committee for St. Louis, Iron Mountain & Southern, River and Gulf divisions, first mortgage bonds for services from January 9, 1945, to the closing of the committee's affairs. The total allowance includes \$5,366 for expenses already incurred by the committee and for attorney's fees to close its affairs, and \$1,720 for expenses to be incurred in the completion of its affairs.

NATIONAL RAILWAYS OF MEXICO.—Acquisition.—This road, it is reported, has bought the British-owned Mexican Railway which links Mexico City and Port Vera Cruz. The line consists of 55 miles of standard gage track, and has a rolling stock of 73 locomotives (described in the report as obsolete), mostly electric, 1,050 freight cars and 104 passenger coaches. The purchase price was not disclosed.

NORTHERN PACIFIC.—Operation.—Division 4 of the Interstate Commerce Commission has authorized common-carrier operation by this road of 48 miles of lines from Shelton, Wash., to the so-called

Bangor Magazine Area with a branch from Bremerton Junction to Bremerton, which were built by the Navy Department to serve its facilities on the mainland west of Puget Sound. The N. P. has been operating the lines as a private carrier under agreement with the Navy. In acting favorably on the application, the commission rejected a request of the Union Pacific and Chicago, Milwaukee, St. Paul & Pacific, intervenors, for the imposition of a condition requiring the N. P. to make joint rates and through all-rail routes with them on the traffic involved. The failure of the division's majority, Commissioners Mahaffie and Miller, to impose such a condition drew a dissenting-in-part expression from Commissioner Porter.

PEORIA & EASTERN.—Operating Agreement.—Division 4 of the Interstate Commerce Commission has approved an extension until February 1, 1981, of the agreement under which this road has joint use with other carriers of the Peoria & Pekin Union's line between Pekin, Ill., and Peoria, and its terminal facilities at Peoria. The agreement expired February 1, 1931, but the parties had been of the opinion that no renewal agreement was necessary. However, the commission found the transaction within the scope of section 5(2) of the Interstate Commerce Act, and approved renewal for a 50-year term from the 1931 expiration date.

PACIFIC ELECTRIC.—Acquisition.—Division 4 of the Interstate Commerce Commission has authorized this road to acquire from its parent, the Southern Pacific, the 15.9-mile segment of the latter's Covina branch between Ganesha Junction, Calif., and Bassett. The acquisition is part of a plan whereby the two roads will eliminate duplicate facilities in the area, the P. E. substituting operations over the acquired line for those over a parallel section of its Los Angeles-San Bernardino line which is being abandoned. The line will be acquired for its depreciated ledger value which was \$510,045 as of August 31, 1945, and the commission's report imposed the so-called Burlington-case conditions for the protection of employees.

RUTLAND.—Reorganization Plan.—Examiner Homer H. Kirby has recommended in a proposed report that the Interstate Commerce Commission approve a plan of reorganization for this road under which the equities of present common and preferred stockholders would be wiped out. The total capitalization is reduced from \$18,296,300 to \$10,992,950 and present annual fixed-interest charges of \$386,095 are eliminated. Neither would there be any contingent interest charges under the proposed new capitalization which would consist of \$4,981,750 of five per cent preferred stock of \$100 par value, and \$6,011,200 of \$100-par common. Annual dividend requirements on the preferred would be \$249,087.50; the dividends would be cumulative, whether or not earned, up to but not exceeding at any one time a maximum of 15 per cent. Both classes of stock would have voting rights, and the shares would be placed under a voting trust for a period of 10 years. The effective date of the plan would be January 1, 1946.

All of the new preferred and common stock would be distributed to present bond-

holders, the allocation for each \$1,000 principal amount of bonds and all accrued and unpaid interest thereon being as follows: Holders of Ogdensburg & Lake Champlain first mortgage 4 per cent bonds, due July 1, 1948, would receive six shares of new preferred and six shares of new common; holders of Rutland first consolidated mortgage 4½ per cent bonds, matured July 1, 1941, would receive five shares of new preferred and seven shares of new common; holders of Rutland-Canadian first mortgage 4 per cent bonds, due July 1, 1949, would receive 4½ shares of new preferred and seven shares of new common. Collateral pledged under the O. & L. C. bonds includes 2,000 shares of Rutland Transit Company stock, and the proposed plan provides for a voting trust agreement for this stock and issuance of the voting-trust certificates to the bondholders, thus setting up arrangements whereby the stock could be sold and the proceeds, together with all accumulated dividends, distributed pro rata.

While framing his proposed plan on the foregoing basis, the examiner nevertheless found that the record raised "a serious question whether the debtor may be reorganized successfully under present conditions." The answer, he said, "depends upon whether it has a reasonable prospect of being able to meet its operating expenses and pay its taxes, with a sufficient margin to provide for its necessary working capital and to maintain its physical plant to the standard required by the service which it performs." The Rutland "would not meet that test" on the basis of its "recent and current performance," but when the examiner went on to consider "long-range past experience" and prospects for the future "in the light of pertinent circumstances and conditions," he was able to recommend that "despite a poor current earnings record, the commission should find that the debtor is capable of reorganization at this time and that there is evidence upon which a plan, predicated on a conservative new capitalization and meeting the requirements of section 77, may be promulgated."

SEABOARD AIR LINE.—New Securities.—The federal district court in Baltimore, Md., has signed an order directing the reorganization committee of this road to distribute immediately the securities of the new company. The court also ordered payment of \$9,334,000 in cash to holders of the securities deposited under the reorganization plan on account of interest accrued for 1944 and 1945. (For amounts and types of new securities, see the *Railway Age* of February 9, page 342.)

TENNESSEE CENTRAL.—R. F. C. Loan.—The road has applied to the Interstate Commerce Commission for approval of a proposed loan of an additional \$250,000 from the Reconstruction Finance Corporation for a period ending not later than April 1, 1950. The application stated that the funds are required to replenish working capital which has been depleted by "prolonged strikes and the resultant decrease in earnings." The applicant already owes R. F. C. \$4,754,640, the balance of a \$4,984,000 loan, which is also due April 1, 1950.

WESTERN MARYLAND.—Equipment Trust Certificates.—This road has applied to the Interstate Commerce Commission for au-

**NORTHERN
PACIFIC'S**

**TWENTY-SIX
4-6-6-4s**
(CLASS Z-7 and Z-8)



are equipped with
8 Security Circulators each

Eight Security Circulators, in the firebox of each Class Z-7 and Z-8 Northern Pacific 4-6-6-4, aid in maintaining top efficiency in the performance of these giant locomotives.

The Circulators improve the circulation of water over the crown sheet and in the side waterlegs, and reduce honeycombing, flue plugging and cinder cutting.

They also permit the use of a 100% arch, and lengthen the life of the arch brick.

AMERICAN ARCH COMPANY, Inc.

NEW YORK • CHICAGO

SECURITY CIRCULATOR DIVISION

thority to issue \$2,000,000 of 1½ per cent equipment trust certificates, series J, to finance approximately 77 per cent of the cost of 12 new 4-8-4 locomotives ordered from the Baldwin Locomotive Works. The certificates will mature in ten equal annual installments from June 15, 1947, to June 15, 1956, inclusive. They have been sold to Halsey, Stuart & Co. for 99.051 per cent, subject to the approval of the commission.

Average Prices Stocks and Bonds

	Last May 21 week	Last year
Average price of 20 representative railway stocks..	64.20	63.30
Average price of 20 representative railway bonds..	100.05	100.38
		98.76

Dividends Declared

Bangor & Aroostook.—Preferred, \$1.25 quarterly, payable July 1 to holders of record June 4.
Chicago, South Shore & South Bend.—30¢ quarterly, payable June 15 to holders of record June 1.
Detroit Hillsdale & South Western.—\$2.00, semi-annually, payable July 5 to holders of record June 20.
East Mahanoy.—\$1.25, semi-annually, payable June 15 to holders of record June 5.
Erie.—50¢, payable June 15 to holders of record May 31.
Erie & Pittsburgh.—87½¢, quarterly, payable June 10 to holders of record May 31.
Illinois Central (leased lines).—4% guaranteed, \$2.00, semi-annually, payable July 1 to holders of record June 11.
Kansas, Oklahoma & Gulf.—6% Preferred A, \$3.00; and 6% preferred B, \$3.00, both semi-annually; 6% non-cumulative preferred C, \$2.00, all payable June 1 to holders of record May 18.
Little Schuylkill Navigation, Railroad & Coal.—75¢, semi-annually, payable July 15 to holders of record June 7.
North Pennsylvania.—\$1.00, quarterly, payable June 10 to holders of record June 3.
Philadelphia, Germantown & Norristown.—\$1.50, quarterly, payable June 4 to holders of record May 20.
Pittsburgh, Bessemer & Lake Erie.—8% preferred, \$1.50, semi-annually, payable June 1 to holders of record May 15.

Abandonments

DENVER & RIO GRANDE WESTERN.—This road has applied to the Interstate Commerce Commission for authority to abandon that portion of its so-called Baldwin branch between Baldwin, Colo., and Castleton, 2.09 miles.

DES MOINES & CENTRAL IOWA.—This electric road has applied to the Interstate Commerce Commission for authority to abandon a branch from Moran, Iowa, to Woodward, approximately 4 miles, and a line from a point near Highland Transfer, Iowa, to Colfax, 19 miles.

SOUTHERN PACIFIC.—Division 4 of the Interstate Commerce Commission has authorized this road to abandon the 1.5-mile segment of its Covina branch between Pomona, Calif., and Ganesha Junction, the same decision authorizing its subsidiary, the Pacific Electric, to abandon the 7.1-mile section of its Los Angeles-San Bernardino line between Lone Hill, Calif., and Baldwin Park. The abandonments are part of a plan whereby the roads will eliminate duplicate facilities in the area, the P. E. acquiring the remaining 15.9 miles of the S. P.'s Covina branch. The commission's report imposed the so-called Burlington-case conditions for the protection of employees.

Railway Officers

EXECUTIVE

Max V. Beckstedt, whose appointment as vice-president in charge of traffic of the Delaware & Hudson, with headquarters at Albany, N. Y., was announced in the *Railway Age* of May 4, was born at Aultsville, Ont., on September 11, 1888. He attended Brockville Business College, and entered railway service on the Delaware & Hudson in January, 1905, as a clerk in the freight office at Rouses Point, N. Y. From February, 1907 until June, 1915, Mr. Beckstedt served as rate clerk and chief rate clerk in the general office at Albany, and in June, 1915, he became soliciting freight agent at Albany. In January, 1916, he was transferred to Binghamton, N. Y., and then to Oneonta, N. Y., as division freight and passenger agent, being advanced



Max V. Beckstedt

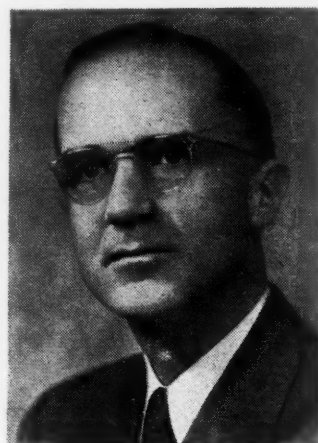
to general agent in the freight department at New York in July, 1922. In December, 1926, he was appointed assistant general freight agent at Albany, two years later being named general freight agent at that location. He filled the position of assistant general traffic manager from February, 1936, until January, 1944, when he was promoted to general traffic manager at Albany. Mr. Beckstedt maintained the latter post until his recent advancement.

FINANCIAL, LEGAL AND ACCOUNTING

W. L. Hunter, assistant commerce counsel of the Chicago, Milwaukee, St. Paul & Pacific at Chicago, has been promoted to assistant general solicitor, with the same headquarters, succeeding C. R. Sutherland, whose death on March 30 was reported in the *Railway Age* of April 6. J. E. Googin has been appointed assistant general attorney, with headquarters at Chicago.

Joseph C. Kauffman, whose appointment as general counsel of the Chesapeake & Ohio, with headquarters at Cleveland, Ohio, was announced in the May 4 issue of *Railway Age*, was born at Detroit,

Mich., on March 1, 1898, and attended the University of Michigan. He entered railroading in June, 1922, as an attorney for the Pere Marquette, advancing to general attorney in 1928. In 1938, Mr. Kauffman took on the additional duties of general



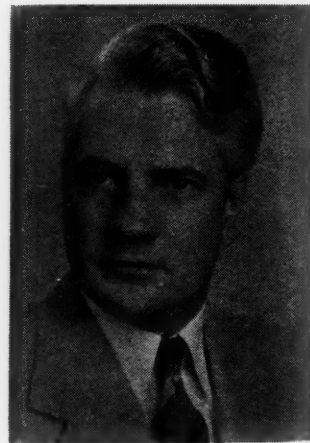
Joseph C. Kauffman

attorney for the Chesapeake & Ohio, and subsequently also the New York, Chicago & St. Louis. He was named general solicitor of the three roads in November, 1942. Mr. Kauffman's recent appointment became effective April 23.

OPERATING

F. W. Kirchner, assistant division superintendent on the Louisville & Nashville, has been promoted to superintendent of the Knoxville & Atlanta division, with headquarters as before at Knoxville, Tenn.

Ralph O. Jensen, whose promotion to terminal superintendent of the Minneapolis, St. Paul & Sault Ste. Marie, with headquarters at Chicago, was reported in the *Railway Age* of May 11, was born at Omaha, Neb., on January 2, 1895, and received his higher education at Harvard university. He entered railway service on



Ralph O. Jensen

August, 1912, as a brakeman of the Soo, and from February, 1927, to April, 1929, he served consecutively as transportation inspector at Minneapolis, Minn., and assistant trainmaster, with headquarters at Superior, Wis. In the latter year Mr. Jensen was promoted to trainmaster at

No Restrictions

In the oil fields where fuel is at the back door—it is advantageous to superheat the steam.

This company, worldwide in experience in all fields of steam power, is best qualified to meet the requirements in the United States oil fields.

It's Elesco no matter where you go.



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May 25, 1946

36

Fond du Lac, Wis., later being transferred to Gladstone, Mich., and to Chicago. In October, 1937, he was advanced to assistant superintendent at the latter point and in 1943 he entered the U. S. Army Transportation Corps where he attained the rank of colonel. Following his honorable discharge he returned to the Soo and was advanced to his new position.

James McLaughlin has been appointed general superintendent of cars of the Southern Pacific of Mexico, with headquarters at Guadalajara, Jalisco, Mex. He was formerly general car foreman of the Denver & Rio Grande Western at Bond, Colo.

C. P. Samwell has been appointed supervisor of transportation and fuel agent of the Saskatchewan district of the Canadian Pacific, with headquarters at Moose Jaw, Sask., succeeding **G. M. Cordingley**, who has retired.

R. F. Woody, whose appointment as assistant to the freight traffic manager for the Seaboard Air Line, with headquarters in Norfolk, Va., was announced in the *Railway Age* of May 4, was born in Portsmouth, Va., and was first employed by the



R. F. Woody

Seaboard as a messenger. He advanced through various clerical posts in the freight traffic department, then was named special representative of the general freight agent in March, 1944. Mr. Woody was serving in the latter position at the time of his promotion.

F. E. Carpenter has been appointed superintendent of the Nashville and Paducah & Memphis divisions of the Nashville, Chattanooga & St. Louis, with headquarters at Nashville, Tenn., succeeding **M. O. Armstrong**, deceased. The position of assistant superintendent of these divisions, formerly held by Mr. Carpenter, has been abolished.

H. H. Sparling, chief of transportation of the Canadian National at Montreal, Que., has been promoted to assistant general manager of the Winnipeg region, with headquarters at Winnipeg, Man. **S. F. Dingle**, general superintendent of the Alberta district, has been advanced to chief of transportation, succeeding Mr. Sparling, and **F. H. Keefe**, superintendent of the Port Arthur division at Port Arthur, Ont., has been promoted to general superintendent

of the Alberta district, with headquarters at Edmonton, Alta., relieving Mr. Dingle. **Bernard Allen**, assistant to the general manager, Western Region, at Prince Rupert, B. C., has been advanced to assistant general superintendent of the British Columbia district, with headquarters at Vancouver, B. C. **J. F. Cooper**, assistant division superintendent at Melville, Sask., has been promoted to superintendent of the Port Arthur division, replacing Mr. Keefe.

Clarence L. Burpee, who rose during World War II to the rank of Brigadier General in the U. S. Army's Military Railway Service and directed widespread operations in North Africa and Europe, has now returned to the Atlantic Coast Line, and was appointed to the position of general supervisor of terminals, with headquarters at Florence, S. C., on May 1.

TRAFFIC

J. Frank Mongan, city passenger agent for the Canadian National at New York, has been promoted to general agent, with headquarters as before.

John L. Berschens has been appointed district passenger agent of the Western Pacific, with headquarters at Los Angeles, Cal.

H. C. Carswell, Jr., has been appointed general agent of the Missouri Pacific, with headquarters at Tyler, Tex., succeeding **W. R. Kiekel**, who has resigned.

C. A. Mulvihill has been appointed general agent of the Atchison, Topeka & Santa Fe, with headquarters at Seattle, Wash.

L. R. Everett, whose promotion to western general passenger agent of the Atchison, Topeka & Santa Fe, with headquarters at San Francisco, Cal., was reported in the *Railway Age* of May 4, was born at Ouray, Colo., on November 1, 1884, entered railroad service in 1901 as a clerk in the freight traffic department of the



L. R. Everett

Santa Fe at Los Angeles, Cal., and served in that capacity until 1906. He was traveling agent at Santa Barbara, Cal., from 1906 to 1909 and city passenger agent at San Francisco from 1909 to 1914. Mr. Everett was promoted to general agent at Santa

Barbara in 1914, and served there until 1924, when he was appointed division freight and passenger agent at San Bernardino, Cal. In 1927 he was advanced to assistant general passenger agent at San Francisco, the position he held at the time of his recent promotion.

Mitchell Coxwell, division passenger agent of the Southern, with headquarters at St. Louis, Mo., has retired after 44 years of service.

Charles J. Ploss has been appointed general agent of the Pere Marquette, with headquarters at Cincinnati, Ohio, succeeding **P. R. Phelps**, who has retired because of illness after 42 years of service.

J. M. Macrae, assistant freight traffic manager of the Canadian National, at Montreal, Que., has been promoted to freight traffic manager, Western Region, with headquarters at Winnipeg, Man.

Melvin P. Eckman, whose promotion to assistant freight traffic manager of the Missouri Pacific, with headquarters at St. Louis, Mo., was reported in the *Railway Age* of May 11, was born at Osborne, Kan.,



Melvin P. Eckman

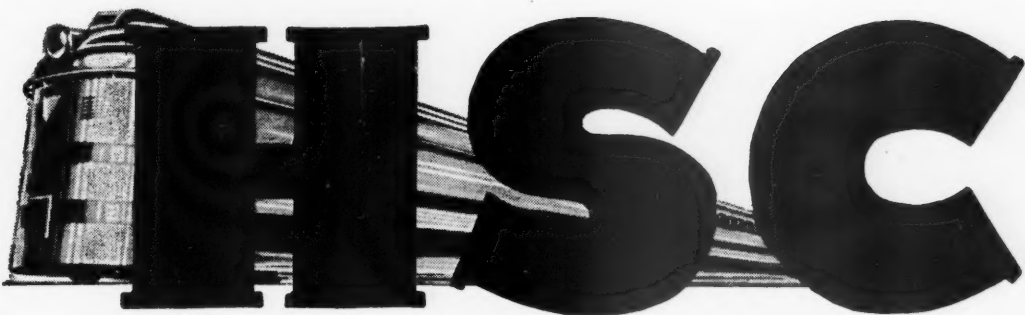
on January 26, 1893. He entered railway service on August 1, 1909, as a station helper at Osborne and since that date has served consecutively as station helper, telegraph operator, agent, traveling passenger agent, traveling freight agent, traffic representative, general agent, assistant general freight agent, general freight and passenger agent and executive representative.

J. W. Moore, honorably discharged from the U. S. Marine Corps, in which he has served since 1943, has resumed his former post of city ticket agent for the Southern, with headquarters at Columbia, S. C.

W. M. Slavik, commercial agent of the Chicago South Shore & South Bend, at Chicago, has been promoted to general agent, with the same headquarters, where he will direct the sales and service of traffic other than coal.

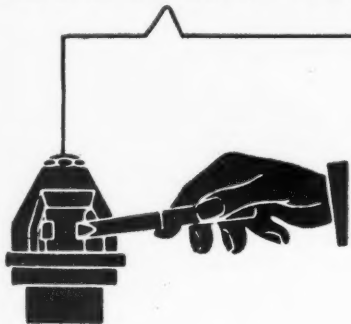
A. J. Ferrell, foreign freight agent of the Chicago, Rock Island & Pacific, at Houston, Tex., has been promoted to foreign freight traffic manager, with headquarters at Chicago, succeeding **Charles E. Barry**, whose death on December 26,

Safety-*Plus* Values

with  HSC

Electro-Pneumatic Brake

Brake Action is Simultaneous
and Uniform on Each Car



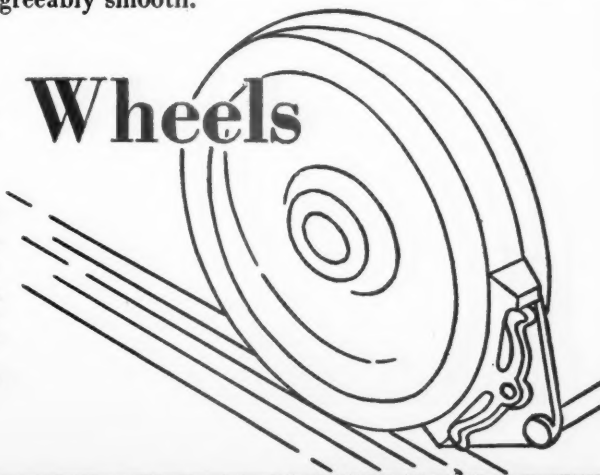
Safety, of course, is the predominant feature in the "HSC" electro-pneumatic brake. It has several *safety-plus* values that show up in the cab, in the train, and at the wheels.

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With the highly efficient "HSC" brake the *safety-plus* values show up sharply at the wheels. Shorter braking periods at lower pressures generally prevail. Reduced shoe wear — (up to 35% as reported in one instance) — also reduces the danger of thermal checks in wheels. And the "AP" mechanical Decelostat, by detecting wheel slip and keeping the wheels rolling, attains the maximum in *safety-plus* protection at the wheels.

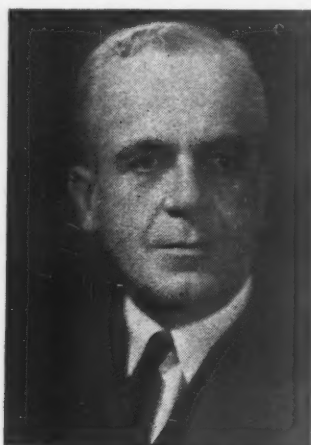


WESTINGHOUSE AIR BRAKE CO.

WILMERDING, PENNSYLVANIA

1945, was reported in the *Railway Age* of January 5. **A. G. Schaeffer**, traveling freight and passenger agent at St. Joseph, Mo., has been promoted to general agent, with the same headquarters, succeeding **J. O. Morgan**, who has been transferred to Pittsburgh, Pa.

George Gilman, whose promotion to assistant general passenger traffic manager of the Atchison, Topeka & Santa Fe, with headquarters at Chicago, was reported in



George Gilman

the *Railway Age* of May 4, was born at LaHarpe, Ill. He entered railway service with the Santa Fe in 1911 as chief rate clerk, with headquarters at Amarillo, Tex., and six years later he was appointed rate clerk in the office of the passenger traffic manager at Chicago. In 1918 Mr. Gilman was advanced to chief rate clerk, with the same headquarters, and in the same year he was further advanced to chief clerk. In June, 1936, he was promoted to assistant passenger traffic manager, the position he held at the time of his new appointment.

Arthur P. Lait, whose appointment as general eastern passenger agent for the Canadian National, with headquarters at New York, was announced in the *Railway Age* of May 4, was born at Winnipeg,



Arthur P. Lait

Man., and entered railway service in the operating department of the C. N. R. in August, 1912. He went overseas with the Canadian Expeditionary Force in World War I, returning to the Canadian National in 1919 as ticket clerk at Winni-

peg. Mr. Lait was advanced to district passenger agent with headquarters at Washington, D. C., in 1940, where he was subsequently named general agent in the passenger department. He maintained the latter post until his recent appointment.

G. A. Moller, chairman of the Standing Rate Committee of the Western Trunk Line Committee at Chicago, has been promoted to chairman of the latter organization, with the same headquarters, succeeding **W. H. Dana**, who has been appointed chairman of the Trans-Continental Freight Bureau at Chicago, replacing **F. D. Burroughs**, who has retired. Mr. Dana is also chairman of the Western Traffic Executive Committee, a position he will retain.

Frank L. Sturges, whose promotion to general passenger agent of the Atchison, Topeka & Santa Fe, with headquarters at Topeka, Kan., was reported in the *Railway Age* of May 4, was born at Florence, Kan., on April 11, 1881. He entered railway service on October 10, 1895, as a messenger on the Santa Fe, at Topeka, subsequently holding various minor positions at Kansas City, Mo., and Topeka until July 1, 1901, when he was promoted to secretary to the general passenger agent, with headquarters



Frank L. Sturges

at Topeka. From November, 1905, to July 1, 1918, Mr. Sturges served as transportation and theatrical clerk and city passenger agent. In the latter year he was appointed military clerk and excursion clerk at Topeka, and on May 16, 1926, he was advanced to assistant general passenger agent, the position he held at the time of his new appointment.

Edward H. Riecks, assistant general passenger agent of the Baltimore & Ohio, has been appointed general passenger agent, with headquarters as before at Baltimore, Md. **R. H. Holter**, also assistant general passenger agent there, has been advanced to general passenger agent with the same headquarters, succeeding **Eugene Thorn**, who has retired after 57 years with the Baltimore & Ohio.

Mr. Thorn, who was born at Baltimore on December 23, 1872, joined the B. & O. in 1889 as a clerk in the accounting department. He transferred to the passenger department in 1897 and there advanced through the positions of rate clerk, chief rate clerk, system rate clerk, and, in March,

1922, chief clerk. In July, 1925, he was promoted to assistant general passenger agent, and maintained this post until October, 1936, when he was appointed to the position from which he has retired.

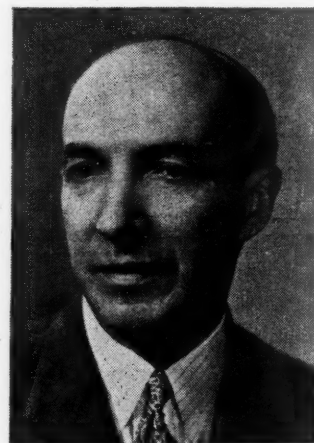
O. M. Oliver, whose promotion to general passenger agent of the Atchison, Topeka & Santa Fe, with headquarters at Amarillo, Tex., was reported in the *Railway Age* of May 4, was born at Ft. Worth, Tex., on July 6, 1905, and entered railway



O. M. Oliver

service on December 1, 1921, as a clerk in the Santa Fe accounting department at Amarillo. He held various minor positions in the passenger traffic department from December 1, 1922, to April 1, 1938, when he was promoted to chief rate clerk at Amarillo. In August of the same year Mr. Oliver was advanced to chief clerk, with the same headquarters, and on August 1, 1941, he was promoted to assistant general passenger agent, the position he held at the time of his new appointment.

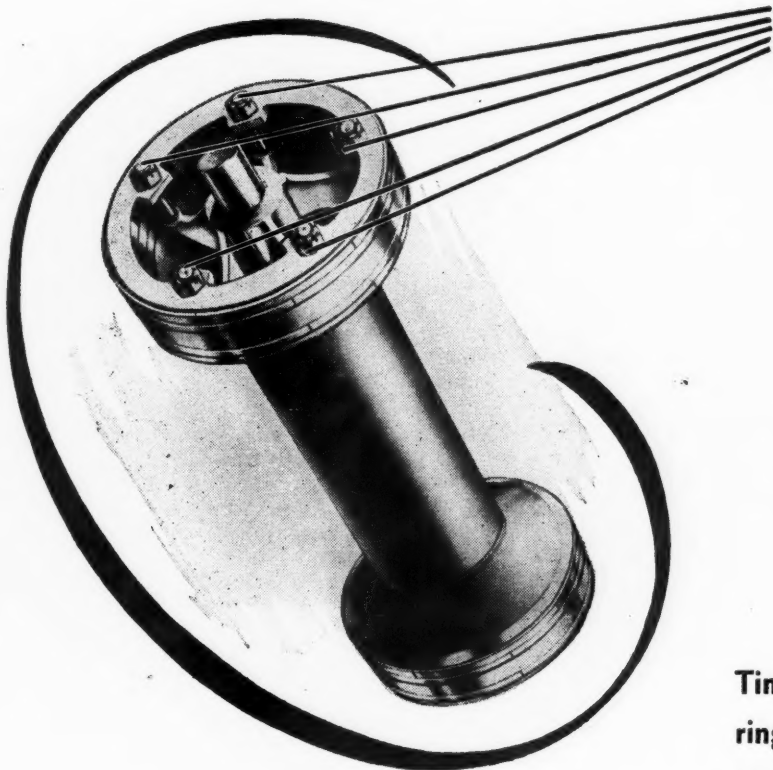
James R. Moriarty, whose promotion to assistant general passenger traffic manager of the Atchison, Topeka & Santa Fe, with headquarters at Chicago, was reported in the *Railway Age* of May 4, entered



James R. Moriarty

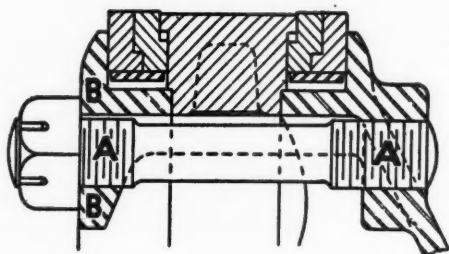
railway service in 1897 as a telegrapher on the Santa Fe and subsequently served as operator and agent at various points of the road in Kansas, Oklahoma and Texas before being advanced to ticket agent at Wichita, Kan., in 1899. In 1905 he was

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Cross section of valve packing and bull rings showing butt-welded stud bolt (A) and follower ring (B)

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promoted to city passenger agent, and in 1912 he was appointed ticket agent at Chicago where he became city passenger agent two years later. In 1920 Mr. Moriarty was advanced to division passenger agent, and in 1936 to assistant general passenger agent, also at Chicago. In 1937 he became assistant passenger traffic manager, the position he held at the time of his new appointment.

George E. Colgate, district freight and passenger agent of the Southern Pacific, at Harlingen, Tex., has been appointed district freight agent, with the same headquarters, a change of title. **M. R. Montgomery** has been appointed district passenger agent at Harlingen.

Glenn Eddie, whose promotion to assistant general passenger traffic manager of the Atchison, Topeka & Santa Fe, with headquarters at Chicago, was reported in the *Railway Age* of May 4, entered the service of the Santa Fe in 1903 as a ticket clerk at Hutchinson, Kan. During the next eight years he held similar positions in Chicago, Los Angeles, Cal., Denver, Colo., and Oklahoma City, Okla., and in



Glenn Eddie

1911 he was promoted to traveling passenger agent, with headquarters at Topeka, Kan. In 1920 Mr. Eddie was advanced to division passenger agent at Oklahoma City, and in 1937 he became general passenger agent, with headquarters at Topeka. Two years later he was advanced to assistant passenger traffic manager at Chicago, the position he held at the time of his new appointment.

P. A. Schumpert, division passenger agent of the Southern, has been appointed to the newly-created position of general eastern passenger agent, with headquarters as before at New York. **J. O. McCollum**, district passenger agent at Columbia, S. C., has been promoted to division passenger agent at New York, succeeding Mr. Schumpert.

Philip J. Cullen, chief clerk to the freight traffic manager of the Chicago, Milwaukee, St. Paul & Pacific at Chicago, has been promoted to assistant general freight agent, with the same headquarters, replacing **W. D. Sunter**, who in turn succeeds to the duties of **John T. McSweeney**, assistant general freight agent at Chicago, whose death on March 16 was reported in the *Railway Age* of March 23.

The Northern Pacific has recently opened four new foreign freight agencies at New York, Chicago, Seattle, Wash., and Portland, Ore. They will be in charge respectively of **J. R. Patterson**, foreign freight agent; **A. J. Wilkins**, export and import agent; **E. M. Stevenson**, foreign freight agent, and **E. E. Chapman**, foreign freight agent.

E. H. Randall, division freight agent of the Atchison, Topeka & Santa Fe at Tulsa, Okla., has been promoted to assistant general freight agent, with headquarters at Oklahoma City, Okla., succeeding **George W. Smith**, who has retired. **W. L. Ketchum**, commercial agent, with headquarters at Kansas City, Mo., has been advanced to division freight agent at Tulsa, relieving Mr. Randall.

ENGINEERING & SIGNALING

Jack W. Jones has been appointed electronics engineer of the St. Louis-San Francisco, with headquarters at Springfield, Mo.

E. T. Bond, Sr., resident engineer of the St. Louis-San Francisco, with headquarters at Springfield, Mo., has retired.

Charles Freeman has been appointed telephone and telegraph engineer of the Western Pacific, with headquarters at San Francisco, Cal.

C. L. Thomas, telegraph engineer of the Delaware, Lackawanna & Western, has been appointed engineer of communications, with headquarters as before at Hoboken, N. J., a change of title.

M. Ellis Burk, formerly assistant director of the Transport Department, Office of Defense Transportation, with headquarters at Washington, D. C., has been appointed special engineer of the Atlantic Coast Line, with headquarters at Wilmington, N. C.

Wilmer Welsh, assistant signal engineer of the Baltimore & Ohio, has been appointed signal engineer, with headquarters as before at Baltimore, Md., succeeding **George H. Dryden**, whose career in railroading was described in the April 27 issue of *Railway Age*, in connection with his retirement on May 16.

PURCHASES AND STORES

C. Vettergreen, storekeeper of the Canadian National at Edmonton, Alta., has been promoted to district storekeeper, with headquarters at Saskatoon, Sask., succeeding **J. S. Park**, who has retired.

E. E. Hanson, assistant general purchasing agent of the Southern, with headquarters at Washington, D. C., has been appointed general purchasing agent there, effective June 1. Mr. Hanson will succeed **L. H. Skinner**, whose photograph appeared with a biographical account of his career in the May 11 issue of *Railway Age*, in connection with his advancement to assistant vice-president.

MECHANICAL

R. W. Ballard, recently released from the armed forces, and previously Diesel engine foreman on the Illinois Central, at Chicago, has returned to that road as Diesel

supervisor, system, with headquarters as before at Chicago.

Sidney Withington, electrical engineer for the New York, New Haven & Hartford, has been named chief electrical engineer, with headquarters as before at New Haven, Conn.

H. F. Brown, assistant electrical engineer for the New York, New Haven & Hartford, has been appointed engineer, electric traction, with headquarters as before at New Haven, Conn.

SPECIAL

L. S. Dillahunt, whose appointment as chief special agent of the Kansas City Southern, with headquarters at Shreveport, La., was reported in the *Railway Age* of May 11, was born at Horatio, Ark., on December 20, 1900. From 1927 to 1928 he served as deputy tax collector at DeQueen, Ark., and from 1929 to 1932 as circuit and chancellor clerk and recorder. He was treasurer of Sevier county, Ark., from 1933 to 1936, and chief deputy sheriff during 1937 and 1938. On March 1, 1939,



L. S. Dillahunt

he became a patrolman in the state police department of Arkansas and was later promoted to sergeant in charge of district No. 4, with headquarters at Hope, Ark. On September 1, 1941, Mr. Dillahunt entered the service of the Kansas City Southern.

OBITUARY

Gordon M. Culver, who retired in 1929 as assistant to the president of the Chicago & North Western, at Chicago, died on May 15, at a hospital in Pasadena, Cal.

J. W. Perrin, who retired as freight traffic manager of the Atlantic Coast Line at Wilmington, N. C., in June, 1940, died there on May 16, at the age of 77. At the time of his retirement he had been in railway service almost 50 years.

James F. Holden, who retired in 1930 as vice-president in charge of traffic of the Kansas City Southern, died at Kenilworth, Ill., on May 12. Mr. Holden was freight traffic manager on the Chicago, Rock Island & Pacific from 1903 to 1906, and in the latter year was elected vice-president and general manager of the Midland Valley. He joined the Kansas City Southern as vice-president in 1910.

Current Publications

TRADE PUBLICATIONS

Corrosion of Steels, 16 pp. Published by U. S. Steel Subsidiaries (American Bridge Company, American Steel & Wire Company, Carnegie-Illinois Steel Corporation, Columbia Steel Company, National Tube Company, Tennessee Coal, Iron & Railroad Company). Copies available from any of above offices. Free.

Two plus two do not necessarily make four in the complex problem of metallic corrosion, says Dr. John Johnston, director of the research laboratory of United States Steel Corporation of Delaware, in this new booklet. Enlarging on this theme, the scientist explains that the action of two chemical elements together in metal may be decidedly greater or smaller than the sum of the effects of each element separately in corrosion resistance.

Corrosion to some extent is inevitable in all but the "noble metals," like platinum, gold and silver, in most environments and atmospheres, the booklet asserts. Prevention of undue corrosion in steels in service is said to be not a single problem, but many problems, depending on types of environment and atmosphere, each of which must be investigated separately.

In revising and bringing up to date only the information on corrosion which he regards as reliable, Dr. Johnston explores various combinations of chemical elements with iron for their corrosion-resisting effects. Roughly, a copper-steel containing 0.20 percent copper is said to be twice as resistant to atmosphere as a plain carbon steel, but this advantage varies with types of atmosphere. Galvanized copper-steel is said to last longer than galvanized plain steel, not because the zinc lasts longer but because of the better resistance of the base metal. On the other hand, in fresh or sea water copper-steel generally is regarded as no more resistant than plain carbon steel.

The presence of phosphorus, regarded by some as an "impurity," in steel also is said to promote corrosion resistance generally. Test results, cited in the book, indicate that certain alloying elements, particularly nickel, are relatively "more effective in enhancing corrosion resistance in marine atmospheres than in industrial atmospheres." Comparative corrosion rates of ordinary steel of varying copper contents are shown in one chart and in another the rate of plain steel, copper-bearing steel and USS Cor-Ten. Corrosion-resisting coatings, including paints, for steel, also are discussed.

PAMPHLETS

Seventy-Five Years of Progress: Historical Sketch of the Southern Pacific, by Erle Heath. 55 pages. Published by the Southern Pacific Bureau of News, 65 Market Street, San Francisco, Cal. Free.

This booklet presents in concise form the history of the Southern Pacific from its founding through World War II. It is a revision of the "75 Years of Progress" articles which first appeared in the Southern Pacific "Bulletin" during 1944. It is well-illustrated and well-indexed.

1 Some chemicals that are used to remove rust do not attack the metal beneath, it is true, BUT—they do not take off the rust either!

2 Other compounds would be very good as rust removers—except that they also remove a large amount of the good steel or iron beneath the rust.

3 NOX-RUST RUST REMOVER, however, satisfies BOTH essential requirements: it removes all the rust AND leaves the sound metal unharmed.

It took long research by skilled chemists in our modern laboratories to develop Nox-Rust Non-Corrosive RUST REMOVER. A scientific blend of active, "wetting" and inhibiting agents, it

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USES: Wherever rust has attacked tools, parts, machinery or equipment—and especially on machined precision surfaces such as bearings where close tolerances are held.

Other Nox-Rust products, covering the whole field of metal protection, and engineered recommendations by trained representatives, are available to all industry

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The Midget Levelometer is a dial type hydrostatic tank gauge that responds to slight changes in the amount of water being measured, yet it is rugged in construction and especially built to withstand the vibration and shock to which all railroad equipment is subjected.

OUTSTANDING FEATURES:

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4. A suitable length of $\frac{1}{2}$ " pipe is all that is required within the tender tank.
5. Designed and built by the country's largest manufacturer of Liquid Level Gauges.

The I. C. C. has ordered all water tender tanks to be equipped with water level indicators not later than June, 1948. Here is an inexpensive and efficient way to meet the Commission's requirements by equipping your tenders with Midget Levelometers . . . We can also furnish liquid level gauges for any of your stationary storage tanks.

Write, wire or phone for a quotation and delivery date.

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Transportation and World Unity, by Cleveland Rodgers and Ernest L. Bogart. 12 pages. Published by the Citizens Conference on International Economic Union, 370 Lexington Avenue, New York 17, N. Y. Free.

The authors urge that the temporary European Central Inland Transport Organization created by the United Nations in London in 1945, for eighteen months, be extended as a permanent international organization. Unification in Europe is discussed and an American parallel is cited in the development of our own United States and how our Union grew out of efforts to improve transportation.

The Transport Situation in Europe, compiled by the European Central Inland Transport Organisation, 40, Grosvenor Square, London, W.1, England. No. 4, January, 1946, 48 pages. Price, five shillings net.

Reviews the transport situation in Belgium, Czechoslovakia, France, Luxembourg, Netherlands, Norway and Poland. Statistics on cars and locomotives and traffic are given, as well as information on water and road transport. There are also maps showing the main waterways of Central Europe as of December, 1945, and the Polish State Railways as of October, 1945.

Selected Income and Balance-Sheet Items of Class I Steam Railways

Compiled from 130 reports (Form IBS) representing 134 steam railways
(Switching and Terminal Companies Not Included)

Income Items	All Class I Railways			
	For the month of February		For the two months of February	
	1946	1945	1946	1945
1. Net railway operating income	\$57,804,888	\$74,840,687	\$128,633,372	\$151,080,439
2. Other income	12,451,859	15,374,231	26,107,842	30,451,319
3. Total income	70,256,747	90,214,918	154,741,214	181,531,758
4. Miscellaneous deductions from income	2,370,566	2,693,354	5,025,436	4,649,344
5. Income available for fixed charges	67,886,181	87,521,564	149,715,778	176,882,414
6. Fixed charges:				
Rent for leased roads and equipment	6,665,540	13,147,184	21,652,135	24,593,157
Interest deductions ¹	29,688,355	31,237,308	59,571,317	62,809,314
Other deductions	115,327	109,487	231,579	213,475
Total fixed charges	36,469,222	44,493,979	81,455,031	87,615,946
7. Income after fixed charges	31,416,959	43,027,585	68,260,747	89,266,468
8. Contingent charges	2,827,695	3,087,449	5,792,827	6,241,939
9. Net income ²	28,589,264	39,940,136	62,467,920	83,024,529
10. Depreciation (Way and structures and Equipment)	28,204,468	27,442,138	56,481,398	54,835,717
11. Amortization of defense projects	485,020	19,216,631	967,894	38,111,418
12. Federal income taxes	21,902,055	83,823,398	47,317,183	171,415,457
13. Dividend appropriations:				
On common stock	17,522,679	16,589,338	20,425,306	18,736,838
On preferred stock	3,879,986	2,745,255	6,479,147	5,341,117
Ratio of income to fixed charges (Item 5 ÷ 6 - 04)	1.86	1.97	1.84	2.02

Selected Asset and Liability Items	All Class I Railways	
	Balance at end of February	
	1946	1945
17. Expenditures (gross) for additions and betterments—Road	\$30,333,014	\$28,477,734
18. Expenditures (gross) for additions and betterments—Equipment	33,738,591	37,664,364
19. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, Account 707)	571,473,260	579,384,437
20. Other unadjusted debits	170,233,307	238,123,180
21. Cash	1,078,522,037	1,136,057,604
22. Temporary cash investments	1,582,130,666	1,874,786,177
23. Special deposits	155,848,351	211,121,219
24. Loans and bills receivable	450,889	383,817
25. Traffic and car-service balances—Dr.	45,303,070	61,059,681
26. Net balance receivable from agents and conductors	100,993,763	143,057,689
27. Miscellaneous accounts receivable	435,473,550	641,870,314
28. Materials and supplies	606,730,021	611,073,558
29. Interest and dividends receivable	29,447,908	32,719,759
30. Accrued accounts receivable	248,599,413	288,905,688
31. Other current assets	50,711,578	54,100,186
32. Total current assets (items 21 to 31)	4,334,211,246	5,055,135,692
40. Funded debt maturing within 6 months ³	134,128,195	102,370,868
41. Loans and bills payable	10,354,058	11,185,000
42. Traffic and car-service balances—Cr.	149,913,674	195,048,407
43. Audited accounts and wages payable	483,833,947	505,276,180
44. Miscellaneous accounts payable	158,731,559	170,891,152
45. Interest matured unpaid	50,324,264	59,045,372
46. Dividends matured unpaid	4,255,662	3,985,208
47. Unmatured interest accrued	77,618,144	73,633,550
48. Unmatured dividends declared	39,134,710	32,012,065
49. Accrued accounts payable	206,916,967	216,146,681
50. Taxes accrued	785,665,285	1,839,504,338
51. Other current liabilities	107,025,544	116,543,372
52. Total current liabilities (items 41 to 51)	2,073,773,814	3,223,271,325
53. Analysis of taxes accrued:		
U. S. Government taxes	654,290,319	1,701,516,131
Other than U. S. Government taxes	131,374,966	137,988,207
54. Other unadjusted credits	412,011,062	534,972,728

¹ Represents accruals, including the amount in default.

² After deduction of the following amounts to create reserves for land grant deductions in dispute: Feb. 1946, \$195,847; Feb. 1945, \$3,374,806; 2 months of 1946, \$559,511; 2 months of 1945, \$6,194,009.

³ Includes payments of principal of long-term debt (other than long-term debt in default) which will become due within six months after close of month of report.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.